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Canadian University Early Admission Policies for Gifted and Talented Students

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(Thesis Format: Monograph)

by

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Abstract

Early entrance/admission to university (i.e., between two and four years before the usual age of admission) can provide multiple benefits for gifted and talented secondary school students. For these students, early university entrance/admission may be a key way to extend their intellectual capacities, capacities that they would not be able to achieve otherwise (Gross & van Vliet, 2005). Many researchers have argued that gifted and talented students not only show exceptional uniqueness in their extended intellectual and cognitive potential (Noble & Childers, 2008), but also, they demonstrate enhanced creativity and curiosity (Noble et al., 2007). Therefore, the primary problem that some gifted and talented secondary school students face is the option of obtaining early entrance/admission to Canadian universities. The question arises whether Canadian universities have implemented early entrance/admission policies and procedures to respond to such needs. This study was conducted in two phases. Phase One investigated what early entrance/admission options are currently offered by Canadian universities. To determine these options, the researcher examined all Canadian Universities' websites and invited Registrars of all Canadian universities (N=98) to participate in the study. The researcher received 27 responses either accepting the invitation to participate in the research (n=16) or declining it (n=11). The research revealed that most universities have not implemented early admission policies and procedures for gifted and talented students who would be interested in early admission. Decisions about early admissions are made on a "case-by-case" basis which seems a satisfactory solution due to low numbers of applicants. On the other hand, universities willingly accept such applications, and the age of applicants is not a decisive factor as long as other standards requirements are met. In

Phase Two, the researcher undertook a single-case study of Paolo (student's pseudonym), a young male, who, at the age of 16, was admitted to the University of Toronto from where he graduated at the age of 19. The case study, like other larger-scale studies of gifted and talented individuals, revealed that students such as Paolo may be very successful and benefit not only academically or intellectually from university early entrance/admission, but also, socially and emotionally. Such multifaceted developmental benefits of early entrance/admission are also supported in the literature and presented in this thesis.

Keywords

gifted and talented students, university early entrance/admission, early entrance/admission policies and procedures, academic benefits, intellectual benefits, emotional/psychological benefits, social benefits

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Dedication

I dedicate this thesis to my whole family; first and foremost, to my wonderful wife, Malgosia, for her unlimited patience, compassion, extraordinary support, and omnipresent optimism without which this work could not be completed. Furthermore, I dedicate this work to my three fantastic children: Joanna, Filip, and Weronika, for their unconditional love and understanding in the time of the greatest challenges. I know very well that not always I was able to be "there" for you, but I love you very much, and thank you.

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Chapter 1

1 Introduction

Chapter One introduces the general research design, the overview of the research problem, and the thesis organization. In the first part, not only the overview of the research problem is outlined and examined, but it also contains academic insights into the problem of university early entrance/admission as it is supported and discussed in the existing literature. The second part provides details about organization of this thesis.

1.1 Overview of the Research Problem

Gifted and talented students who demonstrate exceptional abilities and skills in various domains have often been deeply admired and praised for their unique achievements. The term "gifted and talented students" has been frequently used in some educational documents, such as Marland's report in *Education of the Gifted and Talented* (1972), *Jacob K. Javits Gifted and Talented Student Education Act* (2002), and *The Education Act of Canada* (1990). For the purposes of this study, an operationalized definition of gifted and talented has been drawn from this literature. Gifted and talented students are those who have demonstrated academic excellence well beyond their typical age-grade curricula. The questions that drive the current research are what happens to gifted and talented students in Canada who are capable of satisfying all the secondary school diploma requirements and graduating from secondary schools two or more years earlier? Are Canadian universities prepared then to accept such students earlier than the usual (i.e., 18) age of admission? If so, what procedures and policies have Canadian universities developed and implemented to respond to the needs of gifted and talented

students who elect to gain university early entrance/admission between two and four years before the usual age? If some Canadian universities do not provide an early entrance/admission provision, what reasons and rationale are cited by them to explain a lack of early entrance/admission options?

Initially, this research and these questions were prompted by Paolo (pseudonym), a student from South America whom I met and taught in a secondary school. Paolo, who was 14 years old at that time, successfully completed five credit courses which I taught during which he quickly and easily acquired and mastered the contents. He also successfully achieved the same high results in other courses he took. Consequently, he satisfied the Ontario Secondary School Diploma (the OSSD) requirements at the age of 16 and was offered and accepted to the University of Toronto. He successfully completed all the required credit courses and graduated from the university at the age of 19. It is critical to mention that Paolo had never been psychologically diagnosed as a gifted student; however, he did manifest many characteristics of giftedness that are consistent with descriptions of gifted and talented students in the relevant literature. As a result of his educational journey (detailed in Chapter Three), this spectrum of exceptional abilities within special education became a particularly intriguing academic interest of mine. While I recognized that Paolo manifested many characteristics of giftedness, and I knew that he was accepted into university at a very young age, it was not clear to me whether all Canadian universities enacted early admission procedures or policies to accommodate students like him. What would have happened if Paolo had applied to another Canadian university instead of the University of Toronto? Would he have been accepted? If so, on what conditions? Initial searches revealed to me that there was not much information

available about early entrance/admission policies and procedures to Canadian universities. As a result, secondary school counsellors could find it challenging to properly advise students about university early entrance/admissions.

This thesis, therefore, set out to explore the early university entrance/admission policies and procedures, as well as their potentially multifaceted benefits for gifted and talented students. As Tomlinson and Hockett (2008) indicated, two curriculum modifications for highly gifted and talented students dominate the education landscape: enrichment and acceleration (both are fully described in Chapter Two). The most extreme form of acceleration is "radical acceleration." A direct consequence of radical acceleration is the use of various procedures and strategies "leading to school graduation three or more years earlier than usual" (Gross & van Vliet, 2005, p. 154). This acceleration results in a group of early graduates who are eager to continue their academic growth. Are there any available options for these students? One fundamental question which was prompted by the previous one is whether such students can receive special treatment and accommodations in all educational processes, not only in the K-12 System, but also at Canadian universities.

Because the story of Paolo prompted this research, I also wanted to compare findings of my research to the literature about gifted and talented students. Moreover, it was my intention to determine what specific characteristics of gifted and talented students were manifested by Paolo. This research and analysis has formed a part of the single-case study for the thesis and acted as an example of early entrance/admission to a Canadian university.

1.2 Thesis Organization

Chapter One includes the arguments about the importance of offering early entrance/admission opportunities for gifted and talented students who would like to start their university undergraduate programs two to four years earlier than the usual age of admission. Findings from research examining outcomes of early university entry programs for gifted and talented students (e.g., Noble, Arndt, Nicholson, Sletten, & Zamora, 1999) provide strong evidence of the intellectual, academic, social, and emotional benefits of such offerings.

Chapter Two provides a detailed examination of the literature review to support this spectrum of exceptionalities within special education. This chapter discusses the potential benefits that gifted and talented students may experience if admitted to universities two to four years earlier. Not only may such benefits be applied to intellectual development, but also they can be apparent in the students' emotional, cognitive, and social development. The literature refers to various modifications and educational innovations which have been introduced and implemented to respond to the unique and exceptional needs of gifted and talented students. The specific examples of such are Early Entrance Programs (EEPs) in the United States that accept and prepare young students for their individual, and successful academic performance. The literature also provides strong evidence that benefits to gifted and talented students greatly exceed drawbacks.

The methodological overview of the study, together with the analytical framework for this research, is explained is Chapter Three. The research was carried out in two phases, and its initial scope was to survey the following participants: university Registrars, Paolo (the subject of the single-case study), Paolo's mother, his university professors, and his

university peers. Ultimately, the researcher was able to collect data from 16 Registrars, Paolo, and two of his university peers. Unfortunately, the researcher was unable to collect data from Paolo's mother, his university professors, or the Office of the Registrar of the University of Toronto. The fact that the researcher had numerous opportunities to observe Paolo when Paolo was his student in a secondary school and use those observations in this study became a great advantage. It also assisted the researcher to design and conduct a study that elicited reliable and credible data (more details in Chapter Four).

In Phase One, the researcher collected data that was available at all Canadian universities websites, and Phase Two was a single-case study (n=1). Yin (2014) explains five rationales for single-case designs. A case needs to be "critical, unusual, common, revelatory, or longitudinal" (p. 51). Moreover, Yin pointed out that "those case studies using multiple sources of evidence were rated more highly, in terms of their quality, than those that relied on only single sources of information" (p. 119). Therefore, both phases purposely used different methods to obtain more complex, complete, and reliable findings based on the evidence from both methods (Yin, 2014). Phase One focused on obtaining information about early entrance/admission policies from the Offices of Registrars of all Canadian universities of which there were 98. Therefore, the researcher developed a structured questionnaire that examined four key Research Foci:

Research Focus 1: Has the university developed early entrance/admission procedures or policies?

- If not, does the university intend to develop such policies in the future? If so, when?
- Who, within the university, has the authority to accept gifted and talented students 2-4 years prior to the usual admission age?

Research Focus 2: In the case of such early entrance/admission policies, what factors, and documents (academic and non- academic records) are considered during the decision-

making process (e.g., scores, grades, interviews, recommendations, extracurricular involvement)?

- During the early entrance/admission process of gifted and talented students, are there any special requirements and criteria that students must meet in order to be accepted? If so, what are they?
- What, if any, academic and non-academic records are required when considering an application from a gifted and talented student?
- How many gifted and talented students were accepted as a result of early entrance/admission policies to various university programs in the current academic year?

Research Focus 3: Is early entrance/admission to a program regulated at the faculty level?

- If a faculty receives an application form from a 15 or 16-year-old gifted and talented student, what steps are taken to consider such an applicant? Is a separate policy used to evaluate and assess gifted and talented applicants? If a separate policy exists, what variables are included?
- Who makes the final admission decision, the Faculty, or the Office of Registrar?

Research Focus 4: Do gifted and talented students receive any special accommodations and treatment during the first year of their undergraduate studies, and/or are they offered specially altered and designed transitional programs?

- If a gifted and talented student is accepted two to four years earlier than the usual admission age, do you offer any special accommodations, modifications, and/or transitional programs to meet such students' needs and exceptionalities? If so, what are they?
- If not, does the faculty think such programs should be developed and implemented to satisfy students' exceptional needs?

It is important to mention that the questionnaire for the Office of the Registrar of the University of Toronto referenced Research Focus 5 to obtain specific and relevant data regarding Paolo's early admission in 2009. This research focus contained the following questions:

Research Focus 5: How did Paolo meet the criteria of early admission?

- Did Paolo submit the standard application form? Was it sufficient to make an offer of acceptance? Was an offer of acceptance made on the basis of a standard application policy only?
- What elements in the application were considered as critical in the offer-making process?
- Was Paolo's age considered as an advantage, disadvantage, or not considered at all?

Phase Two undertook an exploratory single-case study of Paolo to cameo his educational "journey" prior to, during, and briefly following his acceptance into the UofT, as well as whether, how, and why Paolo exhibited some characteristics of giftedness. Moreover, Phase Two aimed at obtaining insights into Paolo's characteristics and intellectual development to determine his possible giftedness, his early entrance/admission process, as well as his individual observations and experiences resulting from his early admission. To achieve this, the researcher developed a questionnaire that focused on the following key questions (Research Foci): 1) how did Paolo fit the description of a gifted and talented individual?; 2) what exact factors were considered during his early admission to university?; 3) was this decision beneficial for both Paolo and university?; and, 4) what social, academic, and emotional regrets, doubts, and drawbacks did Paolo experience while at university? Reliability of the questionnaire was established by developing a case-study protocol. The researcher followed Yin's five-component research design (i.e., "a case study's questions; its propositions, if any; its unit(s); the logic linking the data to the propositions; and, the criteria for interpreting the findings") (Yin, 2014, p. 29). The researcher used two research methods: a survey questionnaire and a single-case study. Finally, all the data collected from both phases of this research were converged, carefully analysed using an unordered meta-matrix, and concluded to determine the consistency of all findings. The procedure was that once the researcher collected all the data from websites and survey questionnaires, he transferred all the findings into descriptive charts. Charts provided a much clearer way of data comparison and analysis. Responses from Paolo and his peers were descriptive so the researcher maintained the same format.

The main assumption for Phase One was that Canadian universities accepted applications from gifted and talented students who were interested in early (two to four years) admission. To explore this assumption, the researcher examined all Canadian universities' websites first and contacted all the Offices of Registrars of Canadian universities (N=98) to determine how universities approached applications from gifted and talented secondary school students who wanted to commence their undergraduate programs earlier than the usual age of admissions. It was assumed that universities either had developed some policies and/or procedures to respond to the needs of early applicants, or alternatively, had not developed any early entrance/admission procedures, and therefore, considered applications from younger students on a case-by-case basis. The main assumption for Phase Two was that Paolo (a subject of the case study), who was admitted to the University of Toronto at the age of 16, was able to provide insights into his early admission and university experiences. It was also hypothesized that Paolo's early admission, and his successful graduation from the program at the age of 19, provided at least face-value evidence of his giftedness. As mentioned, to determine this more reliably, the data were sought from Paolo, his mother, the Office of the Registrar of the University of Toronto, five of his university professors, and five of his university peers. However, as previously mentioned, the researcher was subsequently able to collect data from Paolo and two of his university peers.

Chapter Four specifies the findings of each phase of the study. Findings were derived from the data obtained from the Offices of Registrars, as well as from Paolo and his peers. The findings suggest that there needs to be early admission policies to enable gifted students to access early admission to university. Moreover, the findings also reveal

that Paolo was ready for the undergraduate program at the age of 16, and he subsequently benefited from university early admission academically, intellectually, socially, and emotionally.

Chapter Five examines research conclusions, implications, suggestions, as well as limitations that the researcher experienced during the process. The most significant conclusion is that Canadian universities accept applications from gifted and talented students as long as they meet all the criteria of general admissions, meaning that potential students are being admitted without being "tested" for giftedness. As a result, the age of applicants does not restrict them from university early entrance/admission. Unfortunately, most universities that participated in the study do not see convincing reasons to develop early entrance/admission policies and procedures. The main reason is a low population of students who could apply for early entrance/admission. As a principle, the writer has noted that gifted and talented students in Canada have been provided with enrichment programs that do not result in early graduation from secondary schools. Although various forms of acceleration options are available in Canada, they have not been implemented, or even some "districts refuse to implement" (Kanevsky, 2011, p. 173).

For some gifted and talented secondary school students, particular private schools may be a desirable alternative since they can offer more responsiveness in curriculum delivery. Finally, the major limitations experienced in undertaking this research were that the researcher only received responses from 16 Offices of Registrars (the Office of Registrar of the University of Toronto that admitted Paolo did not participate). Also, Paolo's mother and relevant university professors did not participate in the study. The lack of those responses, particularly from Paolo's mother, did not allow the researcher to acquire

unique, more complex, and extensive data on Paolo's childhood. Hence, in the case study the sample comprised only Paolo and his university peers (n=2).

Chapter 2

2 Literature Review

Chapter Two outlines the relevant literature regarding definitions of gifted and talented students; how such students compare with other exceptionalities; forms of instruction, program modifications, reasons for specialized programs; types of acceleration and radical acceleration, together with their benefits and drawbacks. Finally, four early entrance programs (EEPs), and their developmental benefits and drawbacks, are presented.

2.1 Definitions: Gifted and Talented

Since time immemorial, periods of higher or lower interest in gifted and talented individuals, as well as their extraordinary achievements, have been formally or informally appreciated. As Clark (2008) pointed out, ancient civilizations of the West (e.g., Egyptians, Greeks, Romans), and the East (e.g., Chinese and Japanese) treated talented and highly capable individuals with particular care, recognizing their value for the benefits of the state. Interest in, admiration for, and various concepts and definitions emphasized varying domains and characteristics of students who were gifted and talented (e.g., in literature, engineering, music, physics, astronomy, fine arts).

Interest in gifted and talented individuals has been rising since the end of World War II. In 1946, the American Association for the Study of the Gifted was created; it was the first ever formal, official, and professional society in this area of education. Since then, advancements in technology and engineering, as the result of high pressure from both civilian and military industries and sectors (e.g., space exploration programs of the 50s

and 60s, the Cold War, satellite and digital technologies), have ignited demand for highly capable, gifted and talented individuals. But, what exactly does the term "gifted and talented" or "giftedness" mean?

Historically speaking, there have been many working definitions of "students who are gifted and talented" and "giftedness." Clark (2008) and Edmunds and Edmunds (2008) cite a contemporary definition of students who are gifted and talented which was originally created by Marland (1972) and published in his report *Education of the Gifted and Talented.* This definition states that:

> ... gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contributions to self and society. Children capable of high performance include those with demonstrated and/or potential ability in any of the following areas, singly or in combination: general intellectual ability; specific academic aptitude; creative or productive thinking; leadership ability; ability in the visual or performing arts; psychomotor ability.

In 1978, this definition underwent a slight modification. The category of "psychomotor ability" was deleted, and the term "preschool" was added to broaden the spectrum of age from very young children to adolescents. The modified definition reads as follows:

> gifted and talented children means children and, whenever applicable, youth, who are identified at the preschool, elementary, or secondary level as possessing demonstrated or potential abilities that give evidence of high performance capability in areas such as intellectual, creative, specific academic or leadership ability or in the performing and visual arts and who by reason thereof require services or activities not ordinarily provided by the school (Purcell, 1978, P. L. 95-561, Title IX, sec. 902).

A more recent definition of students who are gifted and talented was included in the *Jacob K. Javits Gifted and Talented Student Education Act* (2002), which explains that:

> [T]he term "gifted and talented" when used in respect to students, children or

> youth, means students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or is specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities (Title IX, Part A, Section 9101(22)) (p. 54).

This definition has been recognized by many Canadian and American formal education systems (e.g., US Department of Education, Ontario Ministry of Education).

While informal and formal appreciation and admiration for highly gifted and talented students are unquestionable, ironically, concrete and everyday practices and programs for these students are not as impressive as one would expect. As awkward as it may be, the American *No Child Left Behind Act* (2001) pays little attention to the needs of gifted and talented students. Rather, it focuses primarily on efforts to upgrade the scores of the lowest-performing students in two domains: mathematics and reading. VanTassel-Baska (2005) stated that "in an area of No Child Left Behind (NCLB), one population has been neglected - the gifted and talented learner whose needs call for educational attention" (p. 90). Later, Clark (2008) pointed out that the 2006 US Budget originally did not include any funding for gifted education. Nonetheless, the United States Congress finally approved the amount of $9.693 million to continue the Javits Program, established in 1988 with the intent of "supporting specific projects and research on the education of gifted students and development of talent" (p. 12). These examples can be considered as irrefutable evidence that historically students who are gifted and talented have received scarce and/or marginal formal educational support and funding.

Needless to say, the United States program *No Child Left Behind* ought to provide equal educational opportunities to all students without discriminating precocious, profoundly, highly talented, gifted and bright students, even if statistically the number of such

students is a mere fraction of the entire population within the system. It appears unfair and unconstitutional that in many circumstances gifted and talented students are "sacrificed" to benefit other students. It is the case that disproportionate effort, focus, and attention is given to underperforming students. Can we afford to ignore exceptional talents? Can we go on pretending that everything will "turn out all right at the end" for them (Fitzgerald, 1925, p. 6)? Although the answers to these, and similar questions, seem obvious, unfortunately, the reality is often contradictory. How long is this going to last? One thing for certain is that it is not going to change overnight or any time soon. The reality is that in most cases, highly capable students, together with their parents, will have to continue "dealing with" their giftedness, as well as the labelling, lack of tolerance, lack of appropriate academic stimulation, and social and emotional barriers that often accompany being gifted.

It is important that another fundamental, and crucial group of terms associated closely with giftedness be differentiated and defined since the overall concept of giftedness can cause some confusion. Those terms are frequently used interchangeably, but for the purposes of special education, they need to be more accurately and insightfully defined. Edmunds and Edmunds (2008) defined more specifically the terms, such as gifted, prodigy, precocious, expert, creative, and genius in the following ways:

- gifted – at "promise" in any domain recognized as involving intelligence
- prodigy – extreme promise in any domain recognized as involving intelligence; distinguished by performance that is not only promising but also impressive by adult standards
- precocious – earlier-than-expected, domain specific development that ranges from mildly advanced to astonishing; distinguished by performance within an age group and not measured against adult standards
- expert – has achieved a high level of competence in a domain, irrespective of whether the approach is novel or experimental

- creative – regularly solves problems or fashions products in a domain in a way that is initially seen as novel but ultimately is recognized as appropriate
- genius – produces work that is expertly executed and creative and has a profound effect on the domain (p. 177).

Clark (2008), on the other hand, uses levels of intelligence (i.e., IQ scores) as the basic criterion to more precisely and accurately distinguish the cohort of gifted and talented students. As a result, she recognizes three groups: moderately gifted, highly gifted, and profoundly gifted. In this typology, moderately gifted and talented individuals are those with IQ scores between 130 and 144. This group is most commonly represented (two-three per cent of the population). Highly gifted individuals, possessing an unusual level of giftedness, have IQs of 145-159 and are less prevalent (one in 1,000-10,000 students). And the third group, profoundly gifted individuals (rare geniuses) have IQs of 160-180+ and are represented by only one in 10,000-1,000,000 students.

Numerous studies conducted by researchers, such as Clark (2008), Colangelo, Assouline, and Marron (2010), Colangelo and Davis (2003), Gross and van Vliet (2004, 2005), Noble et al. (1998/1999), Noble and Childers (2008), Noble and Drummond (1992), Noble, Vaughan, Chan, and Childers (2007), Olszewski-Kubilius (2002), Robinson and Noble (1992), and VanTassel-Baska (2006), have strongly suggested that gifted and talented students demonstrate exceptional uniqueness in their extended intellectual and cognitive potential (Noble & Childers, 2008), high and intrinsic motivation (Robinson & Noble, 1992), and enhanced creativity and curiosity (Noble et al., 2007). In addition, some are characterized as having emotional and social needs and expectations (e.g., hypersensitivity, tenderness, and acceptance) (Noble et al., 2007). The term "giftedness" has been defined countless times, and each definition seems to emphasize different components. According to Clark (2008), Dabrowski developed a theory in which

"developmental potential" consists of "talents, special ability, intelligence, and five forms of psychic overexcitabilities (OEs): psychomotor, sensual, intellectual, imaginational, and emotional" (p. 81). This theory purports that in their growth, gifted children express "high levels of physical energy, sensory acuity, intellectual curiosity and drive, imagination and empathy" (Clark, 2008, p. 81). Clark (2008) emphasized that Dabrowski's work influenced many areas of psychology, particularly the psychology of the gifted; he became very inspirational for the Columbus Group, a group of American theorists, parents, and educational practitioners. The Group which was formed in 1991 suggests that giftedness is "asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm" (Clark, 2008, p. 81). Moreover, the Group believes that this asynchrony is directly correlated with an individual's intellectual capacity, meaning that it increases together with intellectual capacity. This, on the other hand, results in an individual's higher uniqueness and provides sufficient grounds and rationale for optimal modifications both at home and school.

Contemporary views indicate that giftedness occurs due to a combination of two factors which are strongly interconnected: genetic inheritance and environment (Edmunds & Edmunds, 2008). In terms of genetics, there is a tendency that highly intelligent parents have highly intelligent children. The reason is that such parents, in addition to their genetic contribution, usually have a greater variety of resources, and they spend three times more time reading to their children each day than do families of children who are not gifted (Clark, 2008). The environment, in order to be highly stimulating, must be filled with extremely high levels of support, patience, and tolerance, and not only at

home, but also later at school. In addition, such an environment should be academically and intellectually complex, challenging, and diversified, providing various developmental stimuli. Not only should such characteristics apply to the early home environment, which for a very young child is critical for his or her development, but they also should be later applied to the school environment which takes over the role of a primary provider of academic, cognitive, social, and emotional stimulation.

Reis and Housand (2008) summarized the most commonly recurring characteristics of gifted students. They divided these characteristics in two categories: positive and negative. Each category is further grouped within students' intellectual/academic, affective/emotional and creative characteristics. Table 1 below indicates that positive characteristics within all groups (n=40), such as unusual alertness in infancy and later, high career ambitions, overwhelmingly outnumber the negative ones (n=9), such as uneven mental development and interpersonal difficulties. Daniels (1997) also provided general characteristics of creative individuals and like Reis and Housand, they emphasized self-awareness, independence, risk-taking, high levels of energy, curiosity, sense of humour, attraction to complexity and novelty, open-mindedness, need for privacy, and perception. A slightly different perspective was presented by Clark (2008) who emphasized the high degree of individualism amongst the gifted; she pointed out that each and every gifted individual exhibits various characteristics within certain domains of giftedness. She organized these characteristics using related brain functions: "the cognitive (linear and spacial), affective (emotional and social), physical (movement and sensation), and intuitive areas" (p. 73).

Table 1: Recurrent Characteristics of Students Who Are Gifted.

Positive Characteristics	Negative Characteristics
Intellectual / Academic	
Unusual alertness in infancy and later Early and rapid learning Rapid language development as a child Superior language ability – verbally fluent, large vocabulary, complex grammar Enjoyment of learning Academic superiority, large knowledge base, sought out as a resource Superior analytic ability Keen observation Efficient, high-capacity memory Superior reasoning, problem solving Thinking that is abstract, complex, logical, insightful Insightful, sees "big picture," recognizes patterns, connects topics Manipulates symbol systems Uses high-level thinking skills, efficient strategies Extrapolates knowledge to new situations, goes beyond what is sought High concentration, long attention span Greater metacognition (understanding own thinking) Advanced interests Needs for logic and accuracy Wide interest, interested in new topics High curiosity, explores how and why Multiple capacities (multipotentiality)	Uneven mental development Interpersonal difficulties, due often to intellectual differences Underachievement, especially in uninteresting areas
Affective and Emotional	
High career ambitions Expanded awareness, greater self-awareness Overexcitability Emotional intensity and sensitivity High alertness and attention High intellectual and physical activity level High motivation, concentrates, perseveres, persists, task oriented Active-shares information, directs, leads, offers help, eager to be involved Strong empathy, moral thinking, sense of justice, honesty, intellectual honesty Aware of social issues Reflectiveness Good self-concept – usually Strong internal control Independent, self-directed, works alone Inquisitive, asks questions Excellent sense of humor	Nonconformity, sometimes in disturbing directions Perfectionism, which can be extreme Excessive self-criticism Self-doubt, poor self-image Variable frustration and anger Depression
Creative	
Imaginative, creative, solves problems Preference for novelty	

Source: Reis, S. M., & Housand, A. M. (2008). Characteristics of gifted and talented learners: Similarities and differences across domains. In F. A. Karnes & K. R. Stephens (Eds.), *Achieving Excellence Educating the Gifted and Talented* (p 67). New Jersey: Pearson Education, Inc.

According to Clark, the cognitive function demonstrates the following characteristics:

- extraordinary quantity of information, unusual retentiveness;
- advanced comprehension;
- unusual varied interests and curiosity;
- high level of language development;
- unusual capacity for processing information;
- accelerated pace of thought processes;
- flexible thought processes;
- comprehensive synthesis;
- early ability to delay closure;
- heightened capacity for seeing unusual and diverse relationships, integration of ideas and disciplines;
- ability to generate original ideas and solutions;
- early differential patterns for thought processing (e.g. thinking in alternatives, abstract terms, sensing consequences; making generalizations; visual thinking; use of metaphors and analogies);
- an evaluative approach toward self and others;
- unusual intensity; persistent goal-directed behaviour (p. 74-75).

The affective function includes:

- large accumulation of information about emotions that has not been brought to awareness;
- unusual sensitivity to the expectations and feelings of others;
- keen sense of humor may be gentle or hostile;
- heightened self-awareness, accompanied by feelings of being different;
- idealism and sense of justice, which appear at an early age;
- earlier development of an inner locus of control and satisfaction;
- unusual emotional depth and intensity;
- high expectations of self and others, often leading to high levels of frustration with self, others, and situations; perfectionism;
- strong need for consistency between abstract values and personal actions;
- advanced levels of moral judgement;
- strongly motivated by self-actualization needs;
- advanced cognitive and affective capacity for conceptualizing and solving societal problems;
- leadership ability;
- solutions to social and environmental problems;
- involvement with the metaneeds of society (e.g., justice, beauty, truth) (p. 77-78).

The physical/sensing function is characterized as follows:

- unusual quantity of input from the environment through a heightened sensory awareness;

- unusual discrepancy between physical and intellectual development;
- low tolerance for the lag between standards and athletic skills;
- "Cartesian split"- can include neglect of physical well-being and avoidance of physical activity (p. 78).

Characteristics of the intuitive function are:

- early involvement and concern for intuitive knowing and metaphysical ideas and phenomena;
- open to experiences in this area; will experiment with psychic and metaphysical ideas and phenomena;
- creative approach in all areas of endeavour;
- ability to predict; interest in future (p. 79).

As mentioned earlier, the above characteristics can be found within this group of students on a general level. On an individual level, however, these manifestations differ from case to case, just as students who are gifted and talented differ from one another. The question may arise, whether characteristics of profoundly gifted students are manifested differently in comparison to the moderately or highly gifted? If so, in what ways? Clark (2008) explained that profoundly gifted students "think faster and are more intent and focused on their personal interests" (p. 80). From an educational point of view, such students are even "less able to benefit from the regular classroom" (p. 80). As a result, individualized programs and curricula must be even more challenging than those created for moderately gifted children. Clark (2008) pointed out other characteristics of students who are profoundly gifted and talented which are:

- general tendency to be more isolated by choice, more interested in meta-nature
- lack of interest in popularity, or social acclaim
- an extraordinary speed in processing information
- a rapid and thorough comprehension of the whole idea or concept
- an unusual ability to perceive essential elements and underlying structures and patterns in relationships and ideas
- a need for precision in thinking and expression, resulting in need to correct errors and argue extensively
- an ability to relate a broad range of ideas and synthesize commonalities among them
- a high degree of ability to think abstractly that develops early

- appreciation of complexity, finding myriad alternative meaning in even the most simple issues or problems
- an ability to learn in an integrative, intuitively nonlinear manner
- an extraordinary degree of intellectual curiosity
- an unusual capacity for memory
- a long concentration span
- a fascination with ideas and words
- an extensive vocabulary
- an ability to perceive many sides of an issue
- argumentativeness
- advanced visual and motor skills
- an ability from an early age to think in metaphors and symbols and a preference for doing so
- an ability to visualize models and systems
- an ability to learn in great intuitive leaps
- highly idiosyncratic interpretations of events
- an awareness intensify and depth of feeling
- a high degree of emotional sensitivity
- highly developed morals and ethics and early concern for moral and existential issues
- unusual and early insight into social and moral issues
- an ability to empathetically understand and relate to ideas and other people
- an extraordinary high energy level
- a need for the world to be logical and fair
- a conviction of correctness of personal ideas and beliefs (p. 83).

It is evident that the individual characteristics of each and every gifted and talented student are so unique that they require very special and carefully scheduled and designed programs. Leaving such students in regular classrooms, together with their average peers, may cause serious intellectual, social, and emotional damages, such as underachievement, lower self-esteem, anxiety, and demotivation (Gross & van Vliet, 2005).

2.2 Forms of Instruction/Curriculum Modifications

The Education Act of Canada (1990) classifies giftedness, and consequently, gifted and talented pupils, as one of the categories of students with exceptionalities that are to be

educated in a non-standard manner to satisfy their exceptional intellectual, cognitive, emotional and social needs of. The Act states:

> a pupil whose behavioural, communicational, intellectual, physical or multiple exceptionalities are such that he or she is considered to need placement in a special education program by a committee, established under subparagraph iii of paragraph 5 of subsection 11 (1), of the board, (a) of which the pupil is a resident pupil, (b) that admits or enrols the pupil other than pursuant to an agreement with another board for the provision of education, or (c) to which the cost of education in respect of the pupil is payable by the Minister (p. A3).

The same act defines that a special education program

> is based on and modified by the results of continuous assessment and evaluation and that includes a plan containing specific objectives and an outline of educational services that meets the needs of the exceptional pupil. Special education services are defined as: facilities and resources, including support personnel and equipment, necessary for developing and implementing a special education program (p. A3).

It is also important to recognize how this same act recognizes gifted and talented students. Giftedness is defined as "an unusually advanced degree of general intellectual ability that requires differentiated learning experiences of a depth and breadth beyond those normally provided in the regular school program to satisfy the level of educational potential indicated" (p. A20).

The Ontario Curriculum Unit Planner: Special Education Companion (2002), another fundamental educational document, provides more detailed characteristics of exceptionalities recognizing that a gifted and talented student manifests one, or more (not all of them, though), of the following characteristics: "advanced cognitive abilities, advanced intellectual curiosity, heightened sensitivity and creativity, heightened motivation and extended affective capacities" (p. 58).

Extensive research and studies by the previously mentioned researchers have undoubtedly demonstrated that gifted and talented students can be characterized as exceptional in terms of their extended intellectual and cognitive potential, high and intrinsic motivation, and remarkable creativity and curiosity, as well as in terms of some similar emotional and social needs and expectations (e.g., hypersensitivity, tenderness, acceptance, etc.). When compared to their peers, these students require much more demanding academic challenges that are individualized and flexible.

VanTassel-Baska and Brown (2007) overviewed and analysed 11 programs or curriculum models that currently exist in gifted education. The definition of curriculum models examined in these studies contained the following components:

- a framework for curriculum design and development
- transferable and usable in all content areas
- K-12 applicability
- applicable across schools and grouping settings
- incorporation of differentiated features for the gifted/talented learners (p. 343).

The outcome of this study was to recognize and classify various curriculum models and overall programs of talent development. The most significant ones were The Stanley Model of Talent Identification and Development (VanTassel-Baska & Brown, 2007, p. 345), The Renzulli Schoolwide Enrichment Model (VanTassel-Baska & Brown, 2007, p. 346), Gardner's Multiple Intelligences (VanTassel-Baska & Brown, 2007, p. 347), The Purdue Three-Stage Enrichment Model for Elementary Gifted Learners and Purdue Secondary Model for Gifted and Talented Youth (VanTassel-Baska & Brown, 2007, p. 347), The Maker Matrix (VanTassel-Baska & Brown, 2007, p. 348), The Parallel Curriculum Model (VanTassel-Baska & Brown, 2007, p. 348), The Schlichter Model for

Talents Unlimited Inc. and Talents Unlimited to the Secondary Power (VanTassel-Baska & Brown, 2007, p. 349), Sternberg's Triarchic Componential Model (VanTassel-Baska & Brown, 2007, p. 349) and VanTassel-Baska's integrated Curriculum Model (VanTassel-Baska & Brown, 2007, p. 350). The study also presented several critical assumptions to be considered by curricula decision-makers when differentiating curriculum for gifted and talented students. One of the fundamental assumptions is that all children learn differently, including children who are gifted and talented. Not every student is able to demonstrate and master concepts of high complexity and abstraction. Gifted and talented students should have opportunities to "specialize," and they should be introduced to broader learning opportunities, such as mentorships and special work projects. Another assumption is the presence of intra-individual (intrinsic variables) and inter-individual (background) variability (VanTassel-Baska & Wood, 2008). The assessment and evaluation of curricula are based on a very simple and concrete question: "What have students learned as a direct result of being in a gifted program over one or more years?" (VanTassel-Baska & Wood, 2008, p. 222). The process of developing curriculum needs to address individual characteristics and needs of each student, and its effectiveness, should be "the goal of all curricula designed for gifted learners" (VanTassel-Baska & Wood, 2008, p. 224).

Currently, major modifications/interventions to curricula, including "certain program types, strategies for organizing curriculum, and administrative arrangements for grouping highly able learners" (Gallagher, 1997, p. 18) are approved and used to meet gifted and talented students' needs. The first two (i.e., sophistication and novelty) are limited in their use, and therefore, they are not dominant forms of instruction. Sophistication is defined

as “direct instruction in complex network ideas, such as theories /in the sciences or larger generalizations in the humanities,” and novelty as “introducing into the curriculum unique ideas not normally found in standard programs, such as the interdisciplinary impact of technology on the society” (Gallagher, 1997, p. 18).

The two other major types of modifications, enrichment and acceleration, are more prevalent, and they demand deeper analysis. Clark (2008) pointed out that enrichment is the third type of curriculum modification, and it is “the most used in programs for gifted and talented learners at both elementary and secondary levels” (p. 407). It is defined as “any strategy that supplements or goes beyond standard grade-level work” (Tomlinson & Hockett, 2008, p. 161). For many district administrators, enrichment is appealing as it is the least expensive modification (no need for additional resources) due to the fact that it is simply comprised of additions to the existing curriculum. As Clark (2008) explained, enrichment is aimed at focusing on analysis, synthesis, and evaluation. Examples of enrichment programs include “research skills, higher-level or critical-thinking skills, meta-cognitive skills, and multidisciplinary, or thematic connections” (p. 407). Tomlinson and Hockett (2008) mentioned strategies and programs that support enrichment. These are: “curriculum compacting, the Enrichment Triad Model, enrichment clusters, interest centres, anchor activities, independent projects, orbital studies and WebQuests/Web inquiries” (p. 163-165).

One of the major drawbacks of enrichment is the risk of it becoming a teacher-dominated form of instruction rather than a “differentiated learning experience” (Tomlinson & Hockett, 2008, p. 164). Another serious danger occurs if a teacher does not make regular adjustments due to student’s individual growth and interests. Inappropriately selected and

used strategies may lead to student boredom and/or frustration. Tomlinson and Hockett (2008) explained that enrichment can be used for students who have mastered or completed regular classroom work and/or activities, and there is time to fill. In other words, enrichment is seen as something "extra" and something which students can become familiar with in their spare time, not something included in the regular curriculum.

The fourth type of modification is acceleration. It deserves a more in-depth analysis because, as cited by Tomlinson and Hockett (2008), it is "the most frequently researched and studied form for gifted students" (p. 161). Extensive research by Colangelo and Davis (1997), Gross and van Vliet (2004, 2005), Noble et al. (1998/1999), Noble and Childers (2008), Noble and Drummond (1992), Noble, Vaughan, Chan, and Childers (2007), Olszewski-Kubilius (2002), Robinson and Noble (1992), and VanTassel-Baska (2006) and others provide unquestionable examples of the use of acceleration, and even radical acceleration, produce multifaceted benefits for gifted and talented students. In 2010, the National Work Group on Acceleration, chaired by Nicolas Colangelo, developed and published "Guidelines for Developing an Academic Acceleration Policy." In this report, the Group defined acceleration as "progress through an educational program at rates faster or at ages younger than conventional ... allowing a student to move through traditional educational organizations more rapidly, based on readiness and motivation" (p. 182). Tomlinson and Hockett (2008) and Colangelo and Davis (1997) used similar definitions of acceleration as "an educational intervention that moves students through an educational program faster than the usual rate or younger than the typical age" (p. 161). This means that some gifted students have opportunities to

commence their elementary, secondary, or post-secondary schooling a few years earlier than the usual age. Clark (2008) explained that acceleration may take several forms, "including (1) seeking early entrance to formal schooling, whether at the kindergarten or university level; (2) moving through age-graded classes in less time by skipping grades, completing cross-age grouped or nongraded classes in 2 rather 3 years, or taking advanced placements courses; and (3) moving through curriculum materials, skills, and concepts at an accelerated rate" (p. 409). Although acceleration appears to be a strong solution for meeting the academic needs of highly and profoundly gifted students, there are a variety of ways of offering them accelerated opportunities other than those already referenced:

- telescoping – a process of condensing the grade-level, or subject-matter curriculum into an abbreviated course of study;
- distance-learning – allows students to take advanced courses for school credit;
- dual enrolling – when students take courses at two levels of schooling simultaneously;
- Advanced Placement and International Baccalaureate – offer credit by examination;
- compacting – a strategy by which a teacher preassesses student readiness relative to lesson or unit learning goals and replaces the objectives the students have mastered with more challenging alternatives or interest-based activities (Tomlinson & Hockett, 2008, p. 162).

These, on the other hand, may not always guarantee an appropriate and stimulating educational environment. In order for acceleration to be effective, Clark (2008) argues that the following conditions need to be addressed: differentiation, flexibility in grouping students (by their ability and need), continuity in progress, and delivery by well-informed teachers in groups of five to seven students in a cluster. These forms of educational intervention are, however, restricted for exceptionally (IQ 160-179) and profoundly

gifted students (IQ 180+) who may move through the K-12 system at an extremely fast pace compared to an average peer student (Gross & van Vliet, 2005).

By contrast, Robinson and Noble (1992) provided a slightly different classification of acceleration. Their classification is based on two groups of options: part-time and full-time. Part-time options are offered for secondary school students who want to graduate one year earlier, having fulfilled some of secondary school requirements, and some university credit courses. Part-time options include:

a. omitting some high-school graduation requirements, maintaining at the same time all requirements necessary to enter college;
b. skipping / compacting material in sequential courses, such as language, Math;
c. Advance Placement courses;
d. summer programs;
e. correspondence courses;
f. taking university/college and high school courses simultaneously (p. 21).

Generally speaking, the full-time options are limited to admitting younger students to post-secondary educational institutions a few years earlier than the usual age (usually two and more years).

It is crucial that both the advantages and disadvantages of acceleration be further examined. Obviously, the major benefit which accelerated students may achieve is the advancement of their academic and intellectual development. The study by Noble et al. (2007) pointed out that this domain of development is greatly respected by all participants of the educational processes: students themselves, teachers, educators, and parents. Not surprisingly, properly administered acceleration creates very few drawbacks. However, research findings, indicating the potential of acceleration for enhancing educational outcomes for gifted and talented students, have not changed the attitudes of educational

decision-makers who may remain sceptical about benefits of acceleration. Another factor negatively influencing acceleration is improperly prepared and inexperienced teachers and sometimes, very reserved and sceptical school administrators. As mentioned, some still deeply believe that acceleration is harmful for gifted and talented students in terms of emotional, as well as social development. The typical argument is that being separated, or isolated from their regular peers, may result in an inability to develop developmentally appropriate interpersonal skills and relationships. The research by the Robinson Centre (e.g., Noble et al., 1999) refuted such points of view; it also researched negative psychological consequences of acceleration (Noble et al., 2007) and found that some young gifted and talented students may experience inattention, underachievement, elevated school and/or university exclusion, social and academic conflicts, "irritability, discontent, and depression; ... and for some substance abuse, suicide or delinquency" (Robinson & Noble, 1992, p. 20) due, in part to a lack of accommodation and/or insufficient academic stimulation and support. Numerous researchers have demonstrated that gifted and talented students perform much better and reach their full potential if "submerged" in the appropriately stimulating environment (Gross & van Vliet, 2005). Moreover, Mendaglio (2013) emphasized that "the successful transition from high school to university is essential for academic success" (p. 3). The rhetorical question may arise whether the existing educational systems are properly designed and well-prepared to accommodate students who are gifted and talented. The unfortunate reality looks rather gloomy and often discouraging (VanTassel-Baska, 2006). Although quite a few programs have adapted formally existing curricula expectations to meet the needs of gifted and talented students, such as acceleration, enrichment, sophistication, novelty, Advanced

Placement, International Baccalaureate, and concurrent enrolment (dual enrolment and dual credit) (Colangelo et al., 2010), there have not always been fully synchronized policies and programs that could clearly apply to gifted and talented students (Muratori, Colangelo & Assouline, 2003).

2.3 Types of Acceleration

Exceptional characteristics of gifted and talented students result in special educational modifications, curricula practices, adaptations, and variations, and early entrance programs (EEPs) for university due to the need and desire of these students for advanced (two or more years earlier than usual) academic work (Olszewski-Kubilius, 2002). Robinson and Noble (1992) pointed out that various acceleration options are necessary to satisfy the unique and individual characteristics exhibited by these students. These options can be divided into two major types of interventions: grade-based, and content-based (Colangelo et al., 2010). The criterion used to differentiate these interventions is whether a given modification shortens the number of years in the regular K-12 system or not. Grade-based intervention allows students to shorten the number of years in the K-12 system, and content-based intervention does not.

Acceleration options have been classified into categories, forms, and types. As mentioned and explained above, Colangelo et al. (2010) defined two broad categories: "content-based and grade-based" (p. 183). According to Colangelo et al. (2010), forms of acceleration are defined as "ways of varying the level, pace, and complexity of the curriculum" (p. 183). And finally, the third element of acceleration options are types, defined as "specific variations of practicing a particular form of acceleration" (p. 183). All of these elements combine to accelerate students in the most beneficial, effective, and

efficient manner. Colangelo et al. (2010) also addressed in detail recommendations and key elements of the acceleration policy, guidelines on preventing non-academic barriers, and unintended consequences, as well as a step-by-step procedure of implementing acceleration. Forms and types of the content-based acceleration are:

- single-subject acceleration
- curriculum compacting
- duel enrolment
- credit by examination or prior experience
- Advanced Placement (AP)
- International Baccalaureate (IB) (p.185).

Forms and types of grade-based acceleration are:

- early entrance to school
- whole-grade acceleration
- grade telescoping
- early entrance to college (p. 186).

Gross and van Vliet (2005) pointed out that when inappropriately prepared schools keep gifted students with their peers, "they typically underachieve and experience negative affective outcomes, including lowered self-esteem, anxiety and serious demotivation" (p. 154). Moreover, they continued, "many exceptionally gifted students experience social isolation in the inclusive classroom" (p. 154). In today's schools, a significant number of gifted students spend between 25-50 per cent of their class time waiting for other students to catch up (Gross & van Vliet, 2005). This may trigger various self-stimulating behaviours; unfortunately, not always intellectual ones. As Webb indicated (as cited in Smith, 2003), such behaviours can frequently be recognized as behavioural problems or even confused with behaviour associated with Attention Deficit Hyperactivity Disorder (ADHD), Asperger Syndrome Disorder, or Oppositional Defiant Disorder (ODD). The consequences may be devastating, including damage to peer relationships. Gross (2003)

emphasized that warm and supportive peer relationships, particularly during adolescence, are critical for student's multi-faceted development.

Another form in which acceleration can function is conservative acceleration which allows for a single-grade skip. However, for profoundly talented and gifted students (having IQ scores of 160+), a single grade-skip does not meet their intellectual or social needs. Such students have very limited opportunities to interact with other young people of equal cognitive ability.

2.4 Radical Acceleration

The idea of radical acceleration is a modification which is still very controversial and solely used in the case of profoundly gifted and talented students (i.e., those whose IQ scores are 160+). Gross and van Vliet (2005) stated that:

> radical acceleration is a successful, yet rarely utilized educational practice that assists educators in meeting the cognitive and affective needs of highly gifted students; ... [R]adical acceleration addresses the needs of students who can move at an extremely fast pace through the prescribed school curriculum (p. 154).

When considering radical acceleration, it is each and every school board's responsibility to evaluate students' "intellectual ability, academic readiness, and emotional maturity" (p. 154). Research (Gross & van Vliet, 2005) has demonstrated that radical acceleration can be both effective and psychologically harmless. The direct consequence of radical acceleration is graduation three or more years earlier than usual (even at grade 7 or 8) and early university or college entrance. Robinson and Noble (1992) explained that radical acceleration, if approached individually, matches the specific needs of gifted and talented students. They explained that students should be "in the right place at the right time" (p. 23) which means that they need to be placed in the highly stimulating, complex, and

motivating educational environment. It needs to be highlighted that giftedness is generally a domain-based phenomenon which means that exceptionally high abilities are usually demonstrated in just one domain (e.g., in music, performing and verbal arts, literature, biochemistry, physics, dance, classics, engineering, natural, social, life and computer sciences). In other words, as previously explained, gifted and talented students demonstrate asynchronous development. Their chronological age, as well as their emotional, intellectual, social, and physical development, may be at different levels. Gifted students, depending on their age, are frequently highly sensitive, perfectionistic, and idealistic. All these characteristics emphasize the necessity to individualize educational options to meet such students' needs within one domain. The National Work Group on Acceleration in the earlier mentioned document *Guidelines for Developing an Academic Acceleration Policy* pointed out that an acceleration policy and its recommendations are not to replace enrichment opportunities because some students may benefit mostly from enrichment, some from acceleration, and some from the mix of both (Colangelo et al., 2010).

Gross (2003) concluded that radical accelerants, if they are presented in a proper educational environment, reduce the prospect of boredom and demotivation and at the same time, generate higher levels of social and general self-esteem. Moreover, Charlton's et al. (1994) study of 14 radically accelerated students reported that "all students in the study experienced an increased zest for learning after radical acceleration, which effectively led to a reduction in boredom and positive emotional gains. They reported healthy social relations and no social disadvantages" (Gross, & van Vliet, 2005, p. 159). These findings raise another question, whether it is beneficial for students to commence

university programs even four years earlier. Multifaceted research (Gross & van Vliet, 2005; Robinson & Noble, 1992) provides strong evidence that earlier admission to post-secondary education is definitely more beneficial than harmful for intellectual, social, emotional, and academic growth and development.

Upon discussing the theoretical and practical research, it can be concluded that radical acceleration offers many unique opportunities for highly and profoundly gifted and talented students, ones that no other intervention provides. What is more, conservative acceleration, which allows a student to skip one grade only, may be a satisfactory and desirable option for moderately gifted students; however, for profoundly gifted students it has been proven insufficient.

2.5 Logistical Drawbacks to Radical Acceleration

Research on radical acceleration has revealed some limitations, such as a lack of comparison groups against which findings could be measured and low response rates. Given the low incidence of profound giftedness, studies have generally included only small samples, or even individual cases, and the ability to conduct comparative analysis is therefore, significantly limited. Consequently, the generalizability of these studies is also very limited. Furthermore, low response rates pose a further limitation to the interpretation of findings (Noble et al., 2007; Shepard et al., 2009). Another complication is that many of the studies evaluating radical acceleration have been undertaken only at those universities which had instituted early entrance programs (EEPs). These centres respond to the intellectual needs of gifted students by granting them access to college/university level work earlier (i.e. prior to grade 12 (Olszewski-Kubilius, 2002).

Nowadays, most universities and colleges in the USA more willingly admit exceptionally capable and promising students, sometimes without the requirements of having high school diplomas (e.g., some at the junior/middle school age). However, in such circumstances, universities approach gifted students differently by recognizing their individual differences and adopting contemporary conceptions of giftedness in their instructional and curricular models (VanTassel-Baska, 2006).

Another problem of radical acceleration is its credibility and political dynamics that continue to plague the implementation of accelerated programs for gifted and talented youth. Official educational sensitivity definitely emphasizes the needs of "less fortunate" students which makes "gifted programming even more a pariah" (VanTassel-Baska, 2006, p. 199). Gifted programs often lack sufficient funding, support, and resources. This means that the total costs of participating in gifted programs at the university level are almost fully incurred by gifted students themselves or rather their parents or guardians. In some cases, (e.g., the University of Washington), the regular high school funding follows a student into their chosen post-secondary environment. However, this funding is insufficient to cover all the expenses of participation in the EEP. Let's consider what happens if a gifted student lives in a financially unfortunate environment; one that is simply unable to provide such students with sufficient financial support. In such circumstances, these students may be excluded from equal educational opportunities. It must not be forgotten, though, that equality, high quality, and standards in educational processes are constitutional rights for all students no matter the financial situation or personal characteristics. Participation should not be just a matter of privilege (VanTassel-Baska, 2006). Numerous authors argue that it is time for significant investments to be

made in enhancing educational opportunities for students who are gifted. If the situation does not change, "gifted programs will continue to be at the mercy of shifting public perceptions of worth and the vagaries of state and local budget processes" (VanTassel-Baska, 2006, p. 209).

Other disadvantages of radical acceleration programs are listed by Gross and Van Vliet (2005). The most significant one refers to talented athletes who, if accelerated, can be physically discouraged when competing with much older and physically developed students. Another disadvantage is the difficulty of making career decisions at a very early age. Most participants require intensive early career counselling. Also, students who are artistically or linguistically gifted and talented miss curricular and extracurricular school music classes and arts programs (e.g., band, orchestra, formal dances, competitions, chess clubs, language classes, etc.). Missing school friends and not having social interactions with peers is another drawback. And lastly, these students miss opportunities for scholarships to enter more prestigious universities. A study conducted by Mooney et al. (1991), cited by Muratori et al. (2003), revealed that "homesickness and loneliness may indeed be a formidable problem for a number of freshmen who have recently left home for the first time" (p. 222). Another disadvantage is a lack of formal funding which means that a financial burden is placed on gifted and talented students and their families. This burden in some circumstances may prevent participation in the rapid acceleration program. The final disadvantage is that each year one EEP (e.g., The Center for Talent Development at the Northwestern University) is only able to accommodate approximately 16 students in its one-year transitional program (from more than 200 applications). This even further limits access to such programs.

Finally, Mendaglio (2013) pointed out that "giftedness may predispose gifted students to academic underachievement" (p. 10). A Nation at Risk (Commission on Excellence in Education, 1983) noted that "50% of gifted students are academic underachievers" (Mendaglio, 2013, p. 6). This, as well as psychological crisis, may be caused by "the perception that giftedness means obtaining high marks effortlessly or with minimal effort" (Mendaglio, 2013, p. 8).

2.6 Early Entrance Programs (EEPs)

Several American universities have established early university or college entrance programs, known as EEPs, to address the intellectual needs of exceptionally, highly, and profoundly gifted young students. The leading EEPs in this area are: The Halbert and Nancy Robinson Center for Young Scholars at the University of Washington; The EEP Center at California State University, Los Angeles; The Belin-Blank International Center for Gifted Education and Talent Development at the University of Iowa; and, The Center for Talent Development at the Northwestern University, Evanston, Illinois. The total number of such centres in the USA is estimated to be 18 (Shepard, Nicpon & Doobay, 2009); however, the four outlined later in this chapter have developed, achieved, and maintained high professional standards and an impressive variety of programs. They also actively appreciate not only graduates, but their families as well. Moreover, their programs, organization, and educational processes place direct reliance on the results of their own research findings (e.g., Northwestern University's Midwest Academic Talent Search, summer/weekend programs).

Some American universities have designed specialized centres to meet the needs of gifted and talented students. Such centres exist as a direct response to radical acceleration and

are supported by relevant research. They have proven beneficial for very young, profoundly gifted and talented students. Currently operating EEPs offer much more for their students than just academic and intellectual growth and development. They address critical developmental dimensions, such as social and emotional growth, which otherwise would not be available to such students. Students mature at a rapid pace but in a very supportive, accepting, tolerant, respectful, and professionally sound environment. Not only is this approach highly appreciated and recognized by researchers, faculty, and staff, but also it is highly recognized by students themselves, as well as their parents or guardians. The vast majority of students do not regret "skipping" high school grades or missing semi-formals and proms; they are very satisfied with EEPs (Muratori et al., 2003).

Existing EEPs in the USA vary on several dimensions, and the focus on specific domains or accommodations differ. For example, one EEP is designated exclusively for female students talented in arts (e.g., Mary Baldwin College) while others focus on students' biology, mathematics, and technology (e.g., Center for Talent Development at Northwestern University), or mathematics, physics, English, and computer science (e.g., Education Program for Gifted Youth at Stanford University); some EEPs are residential whereas others require commuting (e.g., Robinson Center for Young Scholars at University of Washington). What they all hold in common is the provision of tremendous support, and the younger the students, the more support they tend to receive (e.g., special residence halls, counsellors, designated lounge, events). Centres based on radical acceleration provide specially designed transition programs which range in length from several months to one year (e.g., Davidson Institute for Talent Development). Their

purpose is to prepare students academically, socially, and emotionally to thrive in a university setting, as well as in work and life.

Conditions of entrance to EEPs also vary but what they often share is admission based on SAT or ACT (or combined) scores and interviews to determine a candidate's maturity, independence, readiness, and family support (Olszewski-Kubilius, 2002). Another approach towards accepting early applicants to EEP has been developed at the University of Iowa (Muratori et al., 2003). The program - the National Academy of Arts, Sciences, and Engineering (NAASE) - follows a rigorous procedure. It consists of two analytical parts: non-academic and academic records. Non-academic records include "strong teacher recommendations, extracurricular involvement, readiness for college, maturity, independence, and family support" (p. 223). Academic records include: ACT, SAT, or combined scores (1,300+), high school grade-point of 3.5+, honours in AP, and academic awards. Shepard et al. (2009) determined four general standards for admission. The first one is higher academic grade point average than non-gifted university applicants. The second standard is assessment of social maturity through interviews with candidates. The third element is analysis of letters of recommendation from teachers, and finally, the last one consists of interviews with parents to be certain that an early applicant will obtain all the required support necessary to succeed. To conclude, EEP centres have developed and used very similar elements and factors in making their decisions regarding early admissions.

The early entrance selection procedures have been refined in response to research findings in an effort to ensure that accelerated students are ready for demanding academic work at the university. Noble et al. (2007) specified that for young participants to succeed

in EEPs, the following conditions need to be met: “a period of intellectual preparation in a supportive and rigorous environment, a peer group that is large enough for them to find same-age friends, and a faculty who enjoy teaching, advising, and mentoring them” (p. 152). Gross and van Vliet (2011) in their Annotated Bibliography of International Research provide more variables of successful radical acceleration which are:

> personal characteristics of the student; involving the student in educational planning; supportive family; supportive educators; individualized acceleration planning; a flexible approach to teaching and learning; programming to support the affective needs of students, and opportunities to develop skills for advanced study (p. 90).

All of these conditions, if properly designed and satisfied, create a complete and vivid picture of a positively stimulating environment in which gifted and talented students will be able to flourish, perform exceptionally well, and develop skills within their individual domains.

2.7 Examples of EEP Centres

2.7.1 The Halbert and Nancy Robinson Center for Young Scholars

One of the most recognized and prestigious EEP centres is The Halbert and Nancy Robinson Center for Young Scholars. The Centre was established in 1977 by Dr. Halbert Robinson, a developmental psychologist at the University of Washington (UW). After his death in 1981, Dr. Nancy Robinson, a professor of psychiatry and behavioural sciences at UW, became the new director of the Centre. She decided to make one major change to the program due to observed serious academic difficulties young students had experienced. She created the Transition School (TS) in 1981. The TS program has five courses: “English (writing and literature), history (medieval and modern Western civilization, and U.S. history), physics, precalculus and ethics” (Noble et al., 2007, p.

153). Later in the year, physics and ethics are replaced with a regular university course, but students still benefit from being under the TS "protection umbrella." Admission to this program is very competitive because only 16 students out of over 200 applications are selected to attend the TS each year.

Over the 30 years since its implementation, the Centre has developed programs which go far beyond the ordinary. Each year the Centre serves several thousand families in a variety of ways:

> the Washington of Search for Young Scholars, a regional academic talent search for students in fourth through eighth grade; Summer Stretch and Summer Challenge, accelerated courses for students in fifth through ninth grade; the Transition School (TS) and Early Entrance Program (EEP) for students who enter the UW after grade 7 or 8; the UW Academy for Young Scholars (UW Academy) for students who enter the UW after grade 10; and Diagnostic and Counselling Service (Noble et al. 2007, p. 153).

The Centre is the only one in the US and abroad which offers two EEPs: the TS and UW Academy. Again, every year only 16 students are admitted to preparatory TS for three quarters, then they graduate to EEP at the end of the first year, and finally, they become undergraduates. The Faculty and Staff mostly consist of doctoral-trained experts and university professors, licensed psychologists, and such distinguished researchers as Dr. Kathleen D. Noble and Dr. Robert C. Vaughan.

2.7.2 EEP Centre at California State University, Los Angeles

The second highly achieving EEP centre was created at California State University, Los Angeles, in 1982. The average age of participants is 13.5 years, with a range of 11 to 16 years of age. The program gathers approximately 150 highly gifted students on campus. Like the Robinson Centre, this EEP offers the complex support, guidance, and counseling

necessary to prepare students for success at the university level. Likewise, most of the EEP students bypass high school or even junior high school. Nonetheless, this program is not a "transfer program." Students are to pursue and earn their regular baccalaureate university degrees in the course of four to five years.

2.7.3 The Belin-Blank International Center for Gifted Education and Talent Development (B-BC) at the University of Iowa

The Belin-Blank Centre (B-BC), founded in 1988, has an undisputable national and international reputation for its research, training, and services. The Center offers developmental opportunities, academic year and summer programs for domestic students, and summer programs for international students. Moreover, the Belin-Blank Exceptional Student Talent Search (BESTS) program is concentrated on identifying exceptional academic talents for the early college entrance program, called the National Academy of Arts, Sciences, and Engineering (NAASE). The Institute for Research and Policy on Acceleration (IRPA), established in 2006, is dedicated to the study and support of curricular acceleration for academically talented students. The purpose of the centre is to serve not only students, their parents, and educators, but administrators and policy makers, as well. Practically, anyone who is interested in how academic acceleration meets the needs of highly able, bright and gifted students can visit the site and benefit from it. Its director, Dr. Nicholas Colangelo, is a well-recognized researcher and one of the authors of the Iowa Acceleration Scale. The Scale is the first and probably the best instrument used to assist in decision-making on whole-grade acceleration. The B-BC's uniqueness, as compared to other EEPs, is to address and reach potentially international gifted students, and encourage them to participate in the NAASE program. Therefore, the

B-BC has established close cooperation with international partners in South Korea, China, Mexico, Canada, Australia, Chile, and Israel.

2.7.4 The Center for Talent Development (CTD) at the Northwestern University

The Center for Talent Development (CTD) has been serving bright students and their families since 1982. Since then, the CTD has developed a multi-faceted operation with four central goals: talent identification, talent development, research, and advocacy. Also, the CTD has created eight research-driven, thriving programs which are as follows: Summer Programs, Saturday Enrichment Program, Gifted Learning Links, Civic Education Project, Northwestern University's Midwest Academic Talent Search and Special Projects: BLAST, EXCITE, Jack Kent Cooke, and the Young Scholars Award. Not only does the Centre focus on the needs of bright students, but it also provides their families with education and support. The CTD director, Dr. Olszewski-Kubilius, is a professor in the School of Education and Social Policy and has been with the Centre for 25 years. She has created, implemented, assessed, and improved educational programs for gifted learners of all ages. She has also conducted in-depth research in the field and published over 80 articles and book chapters on talent development issues, particularly the effects of accelerated educational programs and the needs of special populations of gifted children. Recently, she has been appointed the next President of the National Association of Gifted Children. However, the total success and academic reputation of the Centre does not belong to just one person. It is the result of diligent professional work on the part of all the faculty and staff on a daily basis. Extremely positive feedback and comments from the CTD students prove that what the CTD has been doing is highly

appreciated and valued. Among other options, in-depth study, flexibility in pace and progress, and an unlimited selection of courses which are available nowhere else are just a few examples of CTD offerings.

2.8 Developmental Benefits

The research conducted to assess the benefits and advantages of participation in EEPs has revealed that benefits outnumber the drawbacks (Shepard et al., 2009). Students who take advantage of acceleration, or radical acceleration, "achieve exceptional academic outcomes, do not 'burn out', and do not suffer from gaps in their knowledge or skills" (Gross & van Vliet, 2005, p. 161). A more surprising finding is that although socialising with peers can sometimes be an unpleasant experience for the gifted and talented, socialising with older classmates, or even older college students, results in much more positive social experiences (Gross & van Vliet, 2005). As Gross and Vliet (2005) emphasized, "[T]here is no indication of social and emotional maladjustment arising from well-planned acceleration programs" (p. 162-163).

Noble et al. (2007) conducted the second follow-up study of the EEP graduates at the University of Washington to determine "the long-term effects of early university entrance on their personal and professional lives" (p. 152). Ninety-five individuals participated (45% of all the EEP graduates). Findings confirmed that responders purposely chose early entrance as their educational option because they were excited to learn, accepted by their peers, stimulated intellectually, and supported by faculty and staff. Moreover, this study also revealed that early entrance had a strong and positive influence on graduates' lives, and its developmental benefits can be divided into four major categories. The first and most frequently mentioned benefit was belongingness to a peer group. The group

provided social acceptance of being "different". The second benefit, which seems very obvious, was intellectual challenge and stimulation, independence, and greater confidence, freedom, and responsibility. The third one was "the gift of time", giving accelerated students opportunity to skip high school, and later on, start earlier careers. The last crucial benefit was complex support from the faculty and staff. The study also proved that EEP graduates did not fit the stereotype of being unhappy "nerds", and they were not isolated either socially or culturally. Furthermore, other studies (Janos, Fung, & Robinson, 1985; Olszewski-Kubilius, 2002; Swiatek & Benbow, 1991) have concluded that the majority of EEP graduates continued their higher education at graduate schools of prestigious colleges and universities (Olszewski-Kubilius, 2002). It is interesting to note that the above studies did not point out the number of underachievers. Very few students who participated in EEPs regretted leaving high school early because they had experienced a lack of appropriate support, acceptance, and intellectual challenge. However, Southern and Jones (1992) reported that some gifted and talented students expressed regrets in sports and athletic domains. Students were not able to play their chosen sport, or they did not participate in sports at all. The reason was that they could not compete fairly with older students whose physical development was more progressed. All in all, students themselves admitted that they matured intellectually, academically, emotionally, and socially while participating in an EEP. Noble et al. (1998/1999) stated that:

> when the early program is carefully tailored to adolescents' social, emotional, and intellectual needs, the potential benefits are substantial: increased self-confidence, enhanced resilience, self-discipline, task and goal commitment, a lifelong love of learning, and the possibility of making meaningful contributions to an increasingly complex world (p. 83).

2.8.1 Academic and Intellectual Benefits

The evidence on the academic and intellectual performance of early entrants is overwhelmingly positive. This is reflected by higher grade point averages than those of a regular freshman (Eisenberg & George, 1979) and equal to those of a group of National Merit Scholars at the same university (Janos et al., 1985). EEP students are more likely to complete college and on time (Stanley & McGill, 1986), earn honours (Brody, Assouline, & Stanley, 1990; Stanley & McGill, 1986), and Master's degrees (Brody et al., 1990). Relative to gifted and talented students who did not participate in accelerated programs, Colangelo and Davis (2003) found that regular high school preparation and academic atmospheres were less satisfactory; in fact, they were reported as boring, discouraging, isolating, frustrating, and disappointing. They also pointed out that the most often mentioned obstacles to academics were challenges resulting from courses and material that students had never learned, the quality of instruction, and grading policies. The level of experienced pressure was considered stimulating. Noble and Childers (2008) revealed that most students (60%) felt pressure only from themselves, and 25% of students felt pressure from their parents. Other elements of academic and intellectual development are maturity, in-depth critical and analytical thinking skills, and a lifelong love of learning (Noble et al., 1998/1999). Many EEP-ers learn how to sacrifice some extracurricular activities, work hard, make mistakes, ask for help, and accept criticism. Stanley and McGill (1986) confirmed that students who earned their Bachelor's degrees before the age of 19, graduating three or four years early, performed "splendidly in later life. None thus far 'failed' vocationally" (p. 70). Furthermore, a study by Glazer and Shore (1984) also confirmed positive outcomes and consequences of acceleration. The study revealed

that “less than the usual amount of academic difficulty was encountered, and fewer than average withdrew” (p. 7). Accelerants were frequently enrolled in challenging programs, such as engineering, biochemistry, chemistry, mathematics, physiology, law, medicine, and computer science. The university major scholarship ratio for these statements was also higher than average.

2.8.2 Social Benefits

As expected, the majority of EEP-ers highly appreciated the relationships and friendships they were able to make and maintain not only with other peers but also with other students on campus. One student declared that “the peer group is one of the most important things about the program” (Noble & Drummond, 1992, p. 109). Muratori et al. (2003) revealed that some students recognized this aspect as “... the greatest part” (p. 231). Although friendships and social experiences were very significant for most students, dating in general did not seem to have a high priority or significance. Another important outcome was that interactions with adults were reported to be more stimulating and motivating. Tremendous support from a peer group and faculty and staff enabled EEP-ers to expand their self-confidence, self-expression, effort, leadership, and self-concept. They stated that they could finally have fun together, “hang out”, and feel accepted and comfortable in their environment. However, they had to take full responsibility for engaging in social activities and interactions inside and outside the program. Upon graduating, students achieved confidence, independence, and comfort in various social environments. Finally, the study by Glazer and Shore (1984) indicated that the majority of accelerated students (89%) displayed a strong tendency to seek friendships at grade, not age level, and they were more satisfied with a small, not vast,

number of close friends. Another finding of this study was that accelerated students were not social isolates or loners; they integrated themselves well into university life and work.

2.8.3 Emotional Benefits

The extremely supportive EEP environment (i.e., acceptance of the peer group, a sense of security, belongingness, and tolerance) results in emotional maturity, happiness, and balance. EEP-ers manifest "increased self-confidence, enhanced resilience, self-discipline, task and goal commitment, a lifelong love of learning, and the possibility of making meaningful contributions to an increasingly complex world" (Noble et al., 1998/1999, p. 83). This, of course, does not imply that accelerated students were free of experiences typical for young adolescence age (e.g., partying, driving, dating, etc.). Some students admitted that they had to develop self-discipline, the ability to cooperate with other peers, respect, and tolerance for the ideas of others, and acceptance of individual differences and criticism (Noble & Drummond, 1992; Noble et al., 2007).

Considering all of these emotional advantages, a question arises. What may happen to gifted and talented young students if they are left in a regular classroom? Within this context, these students often lack real friendships, and they may experience peer intolerance, isolation, loneliness, alienation, or labelling (e.g., nerd, egghead, bookworm, pet, brain). These students, just like any other persons in a similar social and psychological environment, may be "at risk for underachievement, depression, sociopathy and related skills" (Noble et al., 1999, p. 83). Other negative consequences of staying in a regular classroom may be manifested as "discontentment, irritability, delinquency, substance abuse, and suicide" (Robinson & Noble, 1992, p. 20).

2.9 Problem Statement

Given all the above, it would be a considerable problem if Canadian universities do not have policies/procedures that respond directly to the needs of gifted and talented students to have access to early entrance post-secondary options. Therefore, the broad goal of this study was to identify whether Canadian universities have developed and/or implemented non-standard/non-traditional options for gifted and talented students who may apply two to four years earlier than the regular age of admission.

The following research questions were designed to examine four respective research foci:

1. Does each Canadian university have early admission procedures and/or policies for gifted and talented students? In the case of a lack of such, how does each university approach and respond to gifted and talented students' applications and their academic needs?
2. In cases where formal procedures were available, what factors, variables and documents were considered during the decision-making process (e.g., scores, grades, interviews, recommendations, extracurricular involvement, samples, etc.)? If not available, did the university intend to implement such procedures in the future, and when?
3. Were offers for early admission regulated at the faculty level, or did such decisions need the approval of the Registrar?
4. Did gifted and talented students receive any special accommodations or treatment during their first semester/year? Or, were they offered specially altered and designed transitional programs?

As mentioned in Chapter One, based on those questions, the researcher developed a structured questionnaire that examined four key Research Foci:

Research Focus 1: Has the university developed early entrance/admission procedures or policies?

- If not, does the university intend to develop such policies in the future? If so, when?
- Who, within the university, has the authority to accept gifted and talented students 2-4 years prior to the usual admission age?

Research Focus 2: In the case of such early entrance/admission policies, what factors, and documents (academic and non- academic records) are considered during the decision-making process (e.g., scores, grades, interviews, recommendations, extracurricular involvement)?

- During the early entrance/admission process of gifted and talented students, are there any special requirements and criteria that students must meet in order to be accepted? If so, what are they?
- What, if any, academic and non-academic records are required when considering an application from a gifted and talented student?
- How many gifted and talented students were accepted as a result of early entrance/admission policies to various university programs in the current academic year?

Research Focus 3: Is early entrance/admission to a program regulated at the faculty level?

- If a faculty receives an application form from a 15 or 16-year-old gifted and talented student, what steps are taken to consider such an applicant? Is a separate policy used to evaluate and assess gifted and talented applicants? If a separate policy exists, what variables are included?
- Who makes the final admission decision, the Faculty, or the Office of Registrar?

Research Focus 4: Do gifted and talented students receive any special accommodations and treatment during the first year of their undergraduate studies and/or are they offered specially altered and designed transitional programs?

- If a gifted and talented student is accepted two to four years earlier than the usual admission age, do you offer any special accommodations, modifications and/or transitional programs to meet such students' needs and exceptionalities? If so, what are they?
- If not, does the faculty think such programs should be developed and implemented to satisfy students' exceptional needs?

It is important to mention that the questionnaire for the Office of the Registrar of the University of Toronto referenced Research Focus 5 to obtain specific and relevant data regarding Paolo's early admission in 2009. This research focus contained the following questions:

Research Focus 5: How did Paolo meet the criteria of early admission?

- Did Paolo submit the standard application form? Was it sufficient to make an offer of acceptance? Was an offer of acceptance made on the basis of a standard application policy only?
- What elements in the application were considered as critical in the offer-making process?
- Was Paolo's age considered as an advantage, disadvantage, or not considered at all?

These questions were designed to address all key aspects of early admission policies/procedures in all Canadian universities. A known fact (i.e., a single-case study of

Paolo) was that students have been admitted to universities earlier than their usual age. As a result, it was crucial to determine what variables, documents, steps, and university authorities were involved directly and/or indirectly in the decision-making process to provide an admission offer. To outline an example of an early admission at a Canadian university, and to document his journey, the researcher analysed a single-subject case study of a student who was accepted at the age of 16 to the University of Toronto that he successfully graduated from at the age of 19.

Chapter 3

3 Method

The study was conducted in two phases. Each research phase was based on the questions formed by the researcher as a result of the preliminary investigations of the literature. In Phase One, the main question was whether each Canadian university had developed its own early entrance/admission procedures and/or policies. The second question was whether such procedures, if implemented, were adapted to meet the particular needs of gifted and talented students. This might have meant that within the same university there could have been several early entrance/admission procedures, depending on program or faculty. That consequently raised questions of how consistently methods, tools, and instruments for gifted and talented students compared between various faculties of the same university. In Phase Two, the main question focused on examining whether Paolo exhibited characteristics of a gifted and talented student and whether his early entrance/admission to university was successful and beneficial. To determine these issues, the researcher sought to interview Paolo, his mother, his university peers, and his university professors.

The questionnaire research questions were derived from a detailed analysis of the literature regarding early university entrance/admission processes and were divided into five research foci. It is important to mention that the researcher decided not to pilot the research questions or check for coherence since these research questions were derived from the review of literature. However, if those questions had been piloted, it possibly would have allowed the researcher to recruit a larger sample. Research Focus One questions determined whether the university developed early entrance/admission

procedures or policies for gifted and talented students. If not, whether the university intended to develop such policies in the future was addressed; and finally, who within the university had the authority to accept gifted and talented students two to four years earlier. Research Focus Two showed exactly which factors, variables, and documents were considered during a decision-making process (e.g., standardized test scores, final grades, interviews, letters of recommendations, extracurricular involvement, samples of work). Also, it was determined what academic and non-academic records were required when considering an early application from a gifted and talented student. Research Focus Three examined whether early entrance/admission to a program was regulated at the faculty level. Research Focus Four indicted whether gifted and talented students who were accepted two to four years earlier received any special accommodations, or program modifications, and whether they were offered specially altered and designed transitional programs during their first semester/year at university. Finally, Research Focus Five questions were added to the questionnaire and sent to the Office of Registrar of the University of Toronto only. The purpose of Research Focus Five was to gather details and insights into Paolo's early admission.

3.1 Phase One: Data Gathering

Phase One of the study began in September 2013 and was divided into two research steps: 1) data gathering, and, 2) data analysis. This part of the study concentrated on Canada-wide data gathering from universities to determine currently existing early admission policies, procedures, and/or practices. The first step of the data gathering process was to research all Canadian universities' websites to obtain any relevant data that would pertain to students who would be interested in early admission. The university

contact list (N=98) was obtained from the Association of Universities and Colleges of Canada (AUCC) website, http://www.aucc.ca/canadian-universities/our-universities/. In case such data were not available, the second step was to contact the Offices of the Registrars of all 98 Canadian universities by email and later by letter and invite them to participate in the study. Once the Internet-data-gathering process was completed on September 30, the researcher commenced his first attempt to contact all the Offices of Registrars using their email addresses (October 5-6). All emails were sent as "urgent" and required a "read" confirmation. Each email consisted of a brief description of the study, and attached was the letter of information (see: Appendix T), the letter of consent (see: Appendix J), and the questionnaire (see: Appendix C). Due to a slow response turnaround and low numbers of responses, this step was repeated after four weeks (October 26) by sending hard-copy letters by mail that included exactly the same research packages. In one instance (i.e., the University of Toronto), the researcher contacted four different Offices of the Registrars (i.e., the UofT Mississauga, the UofT Scarborough, the UofT University Registrar, and the UofT Faculty that admitted Paolo). It needs to be pointed out that in both attempts, the Offices of Registrars were provided with exactly the same research package in English or in French in case of French-speaking universities (see: Appendices U, K and D respectively). Finally, the researcher attempted to contact "non-responding" Registrars by making follow-up phone calls to determine that the research packages had been received. This resulted in obtaining three more responses. The completion of this step was finalized at the end of December 2013.

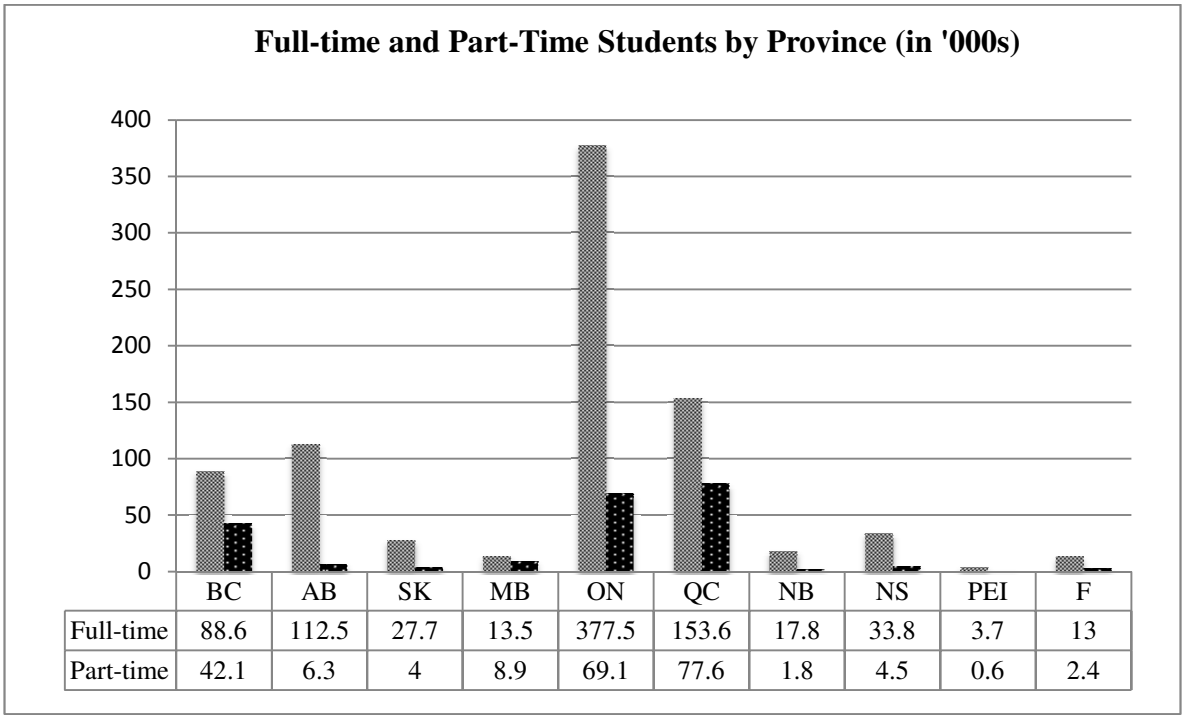
The researcher began Phase One of the research with gathering data about the total populations of both full-time and part-time undergraduate students at all Canadian

universities. As per Clark's (2008) statistical typology explained in Chapter Two, the researcher intended to estimate the number of potentially accelerated students who could apply to universities between two to four years earlier than usual age of admission. Clark used levels of intelligence (i.e., IQ scores) as the basic criterion to accurately distinguish the cohort of gifted and talented students. As a result, she distinguished three groups: moderately gifted (with IQ scores between 130 and 144), highly gifted (with IQs of 145-159), and profoundly gifted (with IQs of 160-180). The group of moderately gifted is the most commonly represented (two-three per cent of the population). Highly gifted individuals are less common (one in 1,000-10,000 students). Profoundly gifted individuals are represented by one in 10,000-1,000,000 students. Using the data from the AUCC website as the source, the numbers of undergraduate full-time and part-time students at Canadian universities in 2012 were roughly 1.06 million students, as indicated in Table 2 below. The total number of full-time students was roughly 841,700 and the number of all part-time students was approximately 217,300. These data allowed the researcher to determine the overall population of gifted students who could potentially qualify to be admitted early. Considering these numbers, there would be approximately 21,200-31,800 moderately gifted, 106-1,060 highly gifted, and 1-106 profoundly gifted students across all 98 institutions. Obviously, these groups of students would be represented across all four years of all undergraduate programs.

This step of the research also allowed the researcher to examine what information about early entrance/admission policies and/or procedures was already available for students who wanted early university entrance/admission. Other factors that were determined and

explored were non-standard/non-traditional admission options available for students interested in early admission.

Table 2: Number of Undergraduate Students in Canada by Province in '000s (as per the AUCC website May 2013).



	BC	AB	SK	MB	ON	QC	NB	NS	PEI	F
Full-time	88.6	112.5	27.7	13.5	377.5	153.6	17.8	33.8	3.7	13
Part-time	42.1	6.3	4	8.9	69.1	77.6	1.8	4.5	0.6	2.4

Whereas standard admission policies and criteria were clearly indicated and easy to find, the requirements of non-standard/non-traditional admission policies and procedures were more difficult to obtain. The most helpful, however, was the "Search Box" tool which was frequently used in the data-gathering process. It proved to be the easiest and quickest way to find the relevant information about early admissions, the Offices of Registrars, the Offices of Admissions, email addresses, and telephone numbers.

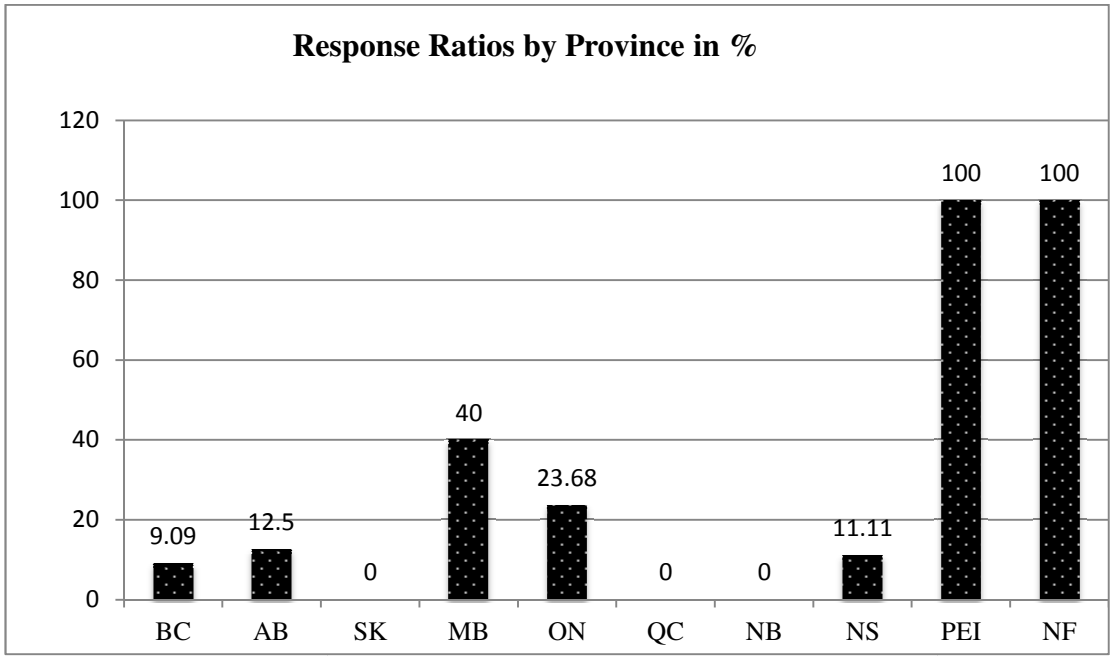
As previously mentioned, from the total number of 98 Offices of the Registrar, the researcher managed to receive 27 responses either positive (n=16), accepting the invitation, or negative (n=11), declining participation. The detailed list of universities that

the researcher contacted is available in Appendix V. The most frequently mentioned reasons for declining the invitation were: 1) the lack of formal early admission policies/procedures; 2) the lack of need to develop such procedures due to a small number of potential gifted and talented applicants (both historically and statistically); 3) a small size of university population; or, 4) the combinations of all of the above. The number of positive responses (n=16) is indicated as follows:

- British Columbia – 1 (out of 11)
- Alberta – 1 (out of 8)
- Saskatchewan – 0 (out of 4)
- Manitoba – 2 (out of 5)
- Ontario – 9 (out of 36)
- Quebec – 0 (out of 19)
- New Brunswick – 0 (out of 4)
- Nova Scotia – 1 (out of 9)
- PEI – 1 (out of 1)
- Newfoundland and Labrador - 1 (out of 1)

Considering the above, the total response ratio is 16.33%. The response ratios by province are illustrated in Table 3 below. It is possible that the low response rate might have been caused by such objective factors as the length and complexity of the questionnaire. Even though there was only one single idea to be examined, the questionnaire consisted of four research foci with a list of specific questions to each focus. Another reason was the timing of the research. As mentioned, the research began in October and continued until the end of December. It is during this period of time that universities are actively involved in the admission process.

Table 3: Response Ratios by Province (as on January 1, 2014).



3.2 Phase One: Data Analysis

The second step of Phase One was data analysis. After all the available data were collected, the existing early admission policies and/or procedures in Canadian universities were carefully investigated and examined, according to the criteria outlined below. The data allowed the researcher to develop representative and accurate situations among the universities responding and to reach informed conclusions as to existing early entrance/admission practices, policies, strategies, and procedures. They included those elements that were available and could be applied in the early admission processes, as well as those that were least mentioned and/or uniquely applied. Moreover, it assisted in obtaining concrete details on commonly used practices. The data provided valuable information on currently existing early admission policies and procedures, as well as reasons for the lack of such.

3.3 Phase Two: Single-Case Study Data Gathering and Analysis

Phase Two concentrated on a single-case study, Paolo (pseudonym), a student from South America who demonstrated accelerated performance at the secondary school level (from 14 to 16 years of age), and at the age of 16, he was admitted to the University of Toronto. He graduated from that university in three years at the age of 19.

There were two major purposes of focusing on Paolo in the research: 1. to determine whether he manifested characteristics of a gifted and talented student in the absence of confirmatory evidence, and 2. to examine existing benefits and drawbacks of early (two to four years) university entrance/admission. Moreover, the single-case study illustrated how potentially gifted and talented students could benefit from early university entrance/admission. Since the single-case study was a case embedded in a broader context, and Paolo was a single unit of analysis within this context, the researcher developed a Type 1 Design of a single-case study called, holistic design (Yin, 2014, p. 55).

In this phase, the researcher initiated the study by attempting to contact Paolo, his mother, his university professors (n=5), and his university peers (n=5). During the preparation stage of Phase Two, it was critical for the researcher to develop a case study protocol. The reason is that a protocol is "the major way of increasing the reliability of case study research, and is intended to guide the researcher in carrying out the data collection from a single case" (p. 84). Yin also suggests that a case study protocol should consist of four sections: "section A: overview of the case study; … section B: data collection procedures; … section C: data collection questions; … section D: a guide for the case study report" (p. 85) which the researcher followed.

Although interviews were designed as the main method of the research, participants preferred questionnaires. As a result, the researcher emailed research packages to Paolo's peers which included a letter of information, a letter of consent, and a questionnaire (see: Appendices Q, M and G respectively). A mentioned, this approach proved to be appreciated, effective, and convenient by potential participants since it provided more flexibility and avoided scheduled, face-to-face interviews. It is important to point out that Paolo was interviewed once. He also provided the researcher with the names and telephone numbers of his university peers (n=5), as well as the names of his university professors (n=5). Where no responses were received from the first request, the request for participation was repeated after four weeks by sending the same packages by mail. Paolo and two of his university peers responded positively to the invitation, but unfortunately, neither his mother nor university professors did.

Specific procedures were investigated to present in detail Paolo's early admission process. Moreover, descriptions of Paolo's university experiences were analysed and discussed through data collections techniques, including either interviews or questionnaires developed specifically for Paolo, his mother, his university peers, and his university professors, as well as the relevant Office of the Registrar at the University of Toronto.

Below is the list of case-study research questions which were derived from a detailed analysis of the literature regarding the elements/factors that appear to constitute giftedness. These questions were included into the questionnaire, and Paolo was asked to answer them during the only interview. The case-study research questions were grouped into four Case-Study Research Foci. Case-Study Research Focus One determined how

Paolo fitted the description of a gifted and talented student. Case-Study Research Focus Two attempted to address the procedure that was used during Paolo's early admission process. Case-Study Focus Three investigated whether Paolo benefited from his decision to start university two years earlier; and finally, Case-Study Research Focus Four concentrated on potential social, academic and emotional regrets and drawbacks during Paolo's years at the University of Toronto. These four Case-Study Research Foci served as the basis for data analysis for this phase of the study.

The Case-Study Research Foci questions, which were drawn from the literature on giftedness, were as follows:

Case-Study Research Focus 1: How did Paolo fit the description of a gifted and talented individual?

- If you remember, how old were you when he started reading/writing? Did you invent any words or concepts?
- If applicable, as a child, did you ask many complex and insightful questions?
- What personality characteristics did you demonstrate as a child? Locus of control? Competition? Perfectionism? Detail-orientation? Symbolism? Creativity? Self-discipline? Maturity and independence?
- What were your favourite games (simple or complicated) and role-playing activities?
- How did you interact with his your peers? Did you attend kindergarten? Preschool? Did he/you enjoy it? What did you enjoy the most? The least?
- What relationships did you develop? Any friendships? Imaginary friends?
- Did you demonstrate sensitivity to the environment? Oversensitivity?
- Did you like schoolwork? Too easy? Too slow?
- What were your favourite subjects? Any extracurricular interests? Any hobbies?

Case-Study Research Focus 2: What factors were considered during your early admission to the University of Toronto?

- Did you apply using a standard admission procedure? Any modifications?
- Did you have to submit any additional, non-standard documentation? Samples? Artefacts? IQ score? Interview?
- If interviewed, to what questions did you have to respond?

Case-Study Research Focus 3: Was this decision beneficial for you and the university?

- After your first year at university, were you satisfied with your academic decision?

- Were any special modifications initially offered to you? If so, which ones? If not, would you have performed even better if such were offered to you?
- Were all of your professors informed of your younger age?

Case-Study Research Focus 4: What social, academic and emotional regrets, doubts and drawbacks did you experience while at university?

- What disadvantages and drawbacks did you experience during your first year?
- Did you manage to develop any friendships?
- Did you actively participate in any extracurricular activities, events, clubs, camps, etc.?
- Were your peers aware of your age? How did it impact your peer relationships?
- If you had to reapply, would you do it? Why? Why not?
- If you were a committee member, would you change anything in the application process? If so, what would it be?
- Were you interested in any extracurricular activities, clubs and/or student associations? What were they?

The complete questionnaire was sent to Paolo prior to the interview, and only one follow-up telephone conversation was necessary to obtain some explanations and clarifications to his initial responses. Once the relevant data were collected, the researcher compared Paolo's data to the literature.

The research questions for Paolo's mother were as follows:

- How did Paolo fit the description of a gifted and talented individual?
- Was there a family history of giftedness? Diagnosed or suspected?
- How old was he when he started reading/writing? Did he invent any words or concepts?
- As a child, did he ask many complex and insightful questions?
- What personality characteristics did he demonstrate as a child? Prompts: Locus of control? Competition? Perfectionism? Detail-orientation? Symbolism? Creativity? Self-discipline? Maturity and independence?
- What were his favourite games (simple or complicated) and role-playing activities?
- How did he interact with his your peers? Did he attend kindergarten? Preschool? Did he enjoy it? What did he enjoy the most? The least?
- What relationships did he develop? Any friendships? Imaginary friends?
- Did he demonstrate sensitivity to the environment? Oversensitivity?
- Did he like schoolwork? Too easy? Too slow?
- What were his favourite subjects? Any extracurricular interests? Any hobbies?

The research questions for Paolo's peers were:

- Did you initially know that Paolo was two years younger than you? How did you find out? Did it change anything? How did you react?
- What did you think about Paolo? Was he helpful, sociable, supportive, and engaged in a group work? Or, was he more frequently seen as reticent, shy, or isolated? Did you value the fact that you met Paolo? If so, why? If not, why were you indifferent?

The research questions for Paolo's professors:

- How did you perceive Paolo as your student initially? What kind of student was he? Did your perception change over time? If so, how?
- How did you assess and evaluate Paolo's performance?
- Were you aware of Paolo's age? If so, did it affect your expectations? If not, would it be possible for you to modify and/or adapt your expectations in regards to the age of your students?
- What strengths and weakness did you recognize in Paolo's performance?
- Did you believe that Paolo was emotionally and socially mature enough to commence his academic career?
- Was his performance exceptional, average, below average? If below, what did you think was the cause of his below average performance?

Finally, both phases of the research allowed the researcher to collect data and formulate findings from multiple sources of evidence (i.e., university websites, university registrars, Paolo, and his university peers). However, no information was received from Paolo's mother, his university professors, or the Office of Registrar at the UofT that admitted Paolo. Paolo, on the other hand, willingly participated in every aspect of this study. This phase was concluded on October 1.

Chapter 4

4 Results

Chapter Four presents the findings that evolved from the data derived from Canadian universities, as well as from the data gathered about Paolo and his university early admission. As Glazer and Shore (1984) concluded, a "university need not fear for the academic success of younger-than-average students whom it might admit … evidence elsewhere speaks equally for the potential success of young students of high ability who skip three or four years of high school, and do not hold a high school leaving diploma" (p. 8). To provide a clear analysis of the collected data and their findings, the researcher developed a linear-analytic structure (Yin, 2015, p. 188).

4.1 Phase One Findings

In Phase One, the researcher gathered and analysed data from all 98 Canadian universities regarding currently existing early admission policies and procedures. The first difficulty and finding was that the term "early entrance/admission" was used inconsistently, and it differed considerably from the one found in the literature that predominates in the USA. In Canada, early admission most typically means offering early "acceptance" to qualified high school or transfer students before final grades become officially available on students' transcripts. For instance, the University of Alberta's website informs that "[E]arly Admission to most programs is offered to qualified high school students before final grades are available. A major advantage in being awarded Early Admission is that students will be eligible to register in fall courses as early as April" (http://admissions. ualberta.ca/how-to-apply/early-admission.aspx). This was the most typical interpretation of this term, and therefore, the option of early admission is

limited to an opportunity to be admitted before final grades on the formal transcript becomes available. The exception was the Athabasca University which directly and explicitly provided information about the early admission option, pointing out that "[A]s an open university, Athabasca University admits students 16 years of age or older. Students may be of any nationality and reside anywhere in the world" (http://calendar.athabascau.ca/undergrad /current/page06_01.php).

Another finding was that there were universities which shared the same admission procedures/policies. For example, Victoria University shares the University of Toronto admission process; Brescia University College, Dominican University College, Huron University College, and King's University College share the Western University admissions process; Campion College, First Nations University of Canada, and Luther College share the University of Regina process; Nova Scotia Agricultural College shares the Dalhausie University admission process; St. Thomas More College shares the University of Saskatchewan admission process, and, St. Paul's College shares the University of Manitoba admission process.

4.1.1 Research Focus 1: Has the university developed early entrance/admission procedures or policies?

The research clearly revealed a general lack of early admission policies/procedures. Only two universities from those that responded (the University of PEI and University of Ontario Institute of Technology) had developed early admission policies/procedures. Both universities admitted that they had occasionally received applications from accelerated students in the past; however, the numbers were not many. Most responders (e.g., Memorial University of Newfoundland, the University of Prince Edward Island, the

Western University) explained that development and/or implementation of early admission policies/procedures was most often unnecessary, or economically unjustified, due to a very low, or completely insignificant, number of applications from this group of students. Therefore, such applications, if received, were approached individually (i.e., a "case-by-case" or "ad hoc" basis). For instance, the number of all early-admitted students ranged between none to four students per academic year across the universities that responded to the research. The Western University recorded only three students who wanted to be admitted earlier than the usual age in the last 32 years! University of Ontario Institute of Technology recorded only three or four students who were radically accelerated (admitted at the age of 13) over the last several years. The University of PEI granted admissions to four students this academic year from the Quebec Secondary V system (i.e., after 11 years of secondary school). As clarified, those students could be included under this category. Other responders recorded no accelerated students at all.

Another finding was consistency in the authority of who holds power to accept accelerated students two to four years prior to the usual age if it happens. As a principle, such authority is granted to the Registrar, the Assistant Registrar, or the Director of Admissions. The decision on the early admission may be, however, contingent on consultation with a Dean of a given faculty to which a student is seeking early admission and /or the Vice-Provost.

Several universities developed more specific procedures upon receiving an application for early admission. In the case of Brock University, a decision on the early admission of a student may either require consultation with the Student Affairs Committee/Office and Senate or may be made authoritatively by the Director of Admissions. Another instance

of how a decision on the early admission of a student is made is within McMaster University where it is based exclusively on Senate policy. At the Western University, the authority to admit gifted and talented students earlier is granted by the Admissions Office in conjunction with the Vice-Provost, the Registrar, and the Dean of the Faculty to which such students are applying.

It must be mentioned here that the final decision on early university admission across all reporting universities is based on standard/centralized admission procedures. Those procedures are complex because they respond to the requirements of a given program, university specifics, characteristics, and provincial educational systems.

4.1.2 Research Focus 2: In the case of early entrance/admission policies, what factors and documents (academic and non-academic) are considered during the decision-making process?

The data revealed that most Canadian universities use similar procedures for all applicants. They do not differentiate in terms of the age of applicants (i.e., younger/accelerated versus regular/usual age). As a result, age of students is not a decisive factor in the admission process as long as all other standard requirements are met. Needless to say, those standard requirements differ from province to province. However, what they all have in common is the requirement for student completion of secondary school. For instance, in Ontario, these are the Ontario Secondary School Diploma (OSSD) requirements, as well as six (grade 11 and 12 courses) on university (U) or university/college (M) levels.

Another finding is that a two-step admission process is applied: 1) standard/centralized, and 2) a separate acceptance procedures that depends on a seeking program. What this

means is that if standard requirements are not met, there is no offer from the university to the early applicant. However, in very exceptional circumstances, a "special admission" could be granted by the University Committee of Admissions if a student does not meet standard requirements. Such a procedure has been implemented by Memorial University and the University of PEI, and in such cases, a student's special aptitude has to be clearly determined and recognized. This approach finds strong support in the literature. Robinson and Noble (1992) explicitly explained that giftedness is a domain-based phenomenon which means that exceptionally high abilities of students are demonstrated in one domain only (e.g., in music, performing arts). Very rarely do students display exceptionality or giftedness in two or more domains.

Furthermore, in the case of younger applicants, maturity is another crucial factor to be determined. Determination of students' maturity was also strongly pointed out by Shepard et al. (2009) during the EEP entrance process, assessed primarily through appointed interviews. University authorities need to be convinced that both applicants and their parents are fully aware of the program, as well as university requirements and expectations. To establish this, parents and applicants are invited for interview/-s during which all aspects of university workload and academic expectations are discussed and clarified. For instance, the King's University College interviews parents and contacts the Student Life Office to determine available support options.

The research also resulted in creating a list of non-standard admission options (see: Table 4 below) among which some may be relevant to gifted and talented students' early admissions. This step revealed that terms used in non-standard admission options were interpreted consistently and similarly (e.g., Home-Schooled/Educated Students, Dual

Credits, Concurrent Admission, Accelerated Students).

Table 4: Non-Standard Admission Options and Occurrence Frequencies as per Canadian Universities websites.

Option	Frequency
International Baccalaureate	52
Advanced Placement	42
Home Based/Schooled Learners	17
Dual Credits	3
Concurrent Admission	3
Underage Admission	1
Special Admission	3
Upgrading Admission	1
Flexible Admission	1
Headstart Entry	3
Unclassified Students	1
Exceptional Students	1
Entrance Options	1
Early Admission	1
Non-traditional Admission	1
Open Studies	1
High School Accelerated Students	3

The above data show that the most frequently and commonly recognized non-standard/ non-traditional early admission options are International Baccalaureate (IB) and Advanced Placement (AP) programs. This is consistent with Tomlinson and Hockett's (2008) modifications for gifted and talented students whereby two following options overlapped: dual (concurrent) enrolling and AP or IB grades. Furthermore, the current research of all the Canadian universities websites indicated that most universities in Canada recognize IB and AP scores/grades which directly result in university credit transfers. However, the number of credits, as well as their grades, depend on obtained IB or AP scores. Furthermore, it needs to be explained here that each university studied has developed its own policies with regard to IB and AP credit transfers. For instance, at the Western University, students may be considered for university credit transfer only if they achieved a four out of five on the final AP exams; however, no more than two full-credits

may be transferred. In case of the IB program, students need to complete and obtain the full IB Diploma to expect credit transfer. The University of PEI requires a minimum score of three of seven for admission purposes, and scores of four and five out of seven may be assessed for university credit transfer.

For the purpose of this study, two non-standard/non-traditional options were considered to be directly relevant during the early admission process. These are: 1) Home Based/Schooled or Educated Learner, and 2) Headstart Entry. Gifted and talented students who complete their education at home may be in a position to use this opportunity and apply to a program earlier than the regular age of admission. On the one hand, this requires strong and complex evidence of their academic performance (e.g., writing samples, essays, portfolios, entrance video productions, interviews with such students and their parents, confidential letter/-s of recommendation from impartial sources like home-education coordinators, principals, and so on). These letters should speak to or provide evidence of the student's academic readiness and maturity for university-level undergraduate studies. As per Redeemer University College, it is required that the Home-Schooled student complete a standardized SAT or ACT test, and achieve a minimum score of 940 and 20 respectively. The same academic records are conditions that are echoed with general admission requirements to EEPs in the USA. However, EEPs require significantly higher scores (Olszewski-Kubilius, 2002). Other options available for home-schooled learners include: A Beka Book Testing scores or provincial departmental testing results (e.g., the King's University College). Moreover, the University of Ontario Institute of Technology requires from applicants a high GPA, relevant samples of writing, and an interview with students-applicants and their parents.

The second option which can be applied to students who are seeking early admission is Headstart Entry. The University of Northern British Columbia website informs readers that:

> [O]utstanding students who have completed BC grade 11, can demonstrate an exceptional academic record, and can provide evidence of above average maturity may apply for admission to UNBC. In many cases this may mean concurrently registering in one or two first-year introductory UNBC courses while completing grade 12. However, in exceptional cases, these applicants may be admitted to study as a full-time first-year student at UNBC.
> To apply for Headstart entry, the application must be accompanied by an autobiographical letter indicating the applicant's areas of interest and reasons for wishing to attend UNBC, along with letters of recommendation from the high school principal and at least one teacher or counsellor from the school, and a complete high school transcript. Questions and correspondence should be directed to the Office of the Registrar (http://www.unbc.ca/calendar/undergraduate/high-school-admissions).

As a result, this option is based on the principles of the concurrent admissions that are still required from students to meet the standard admission criteria.

Other forms of non-standard options are used while applying to artistic programs which require specific skills (e.g., in Music, Fine/Visual/Dramatic Arts, or Architecture). Students often need to submit their portfolios with samples of their work.

Finally, as long as the formal documentation and other factors and variables meet the stipulated entry criteria, all of the universities surveyed treat and approach each potential student exactly the same way and apply very similar standard procedures.

4.1.3 Research Focus 3: Is early entrance/admission to a program regulated at the faculty level?

Considering the existing application process, it needs to be emphasized that the university admission application systems are constructed in such a way that only the Office of the

Registrar or Admissions/Enrolment Offices, but not specific departments or faculties, officially accept electronic applications from students. As such, faculties do not immediately become involved in the adjudication process. In exceptional cases, a collaborative discussion between the Registrar and the Director of Admissions, the Dean of Faculty, and the Student Affairs Committee/Office, and/or in conjunction with the Vice-Provost, may be held. Generally, final authority is given to either the Registrar or the Director of Admissions.

4.1.4 Research Focus 4: Do gifted and talented students receive any special accommodations and treatment during the first year of their undergraduate studies, and/or are they offered specially altered and designed transitional programs?

The analysis also revealed the existence of two kinds of student's support: 1) academic, and 2) non-academic (i.e., social/individual). Responders stated perspicuously that standards of academics and expectations must never be compromised, meaning that if students are accepted two to four years prior to the usual age of 18, they should not expect to be provided with any special course modifications or accommodations. It was emphasized that there is only one standard for all students, and there are no exceptions. This aspect of early admission is transparent, discussed, and clarified openly during interviews with students and their parents. On the other hand, such students, if accepted, are never left alone. They are provided with all available support to help them adapt to a new environment both academically and socially. As with other students, they are offered the support of an advisor, academic counsellor, and/or a mentor. The purpose of the mentorship program is to pair a student with a professor. By doing this, students are given opportunities to work "side-by-side" with professors in labs or even on published

work. Such support is arranged on a faculty level.

The last concern was to examine whether early admission policies and procedures should be implemented to satisfy exceptional needs of gifted and talented students. Most responders agreed that due to a low number of students who are interested in early admission, implementation of such procedures seems unnecessary and too costly. As hypothesized, universities approach early admission applicants on a "case-by-case" or "ad hoc" basis which they argue is, for the time being, a satisfactory solution.

4.1.5 Research Focus 5: How did Paolo meet the criteria of early admission?

Unfortunately, Research Focus Five questions, which were sent to the Office of the Registrar of the UofT, were not responded to; therefore, it was impossible to obtain any insights into Paolo's early admission. It is noteworthy that Paolo did contact the Office of Registrar and gave the Office a written permission to release his personal information. It needs to be explained that the researcher did not attach a copy of this letter to maintain complete anonymity.

4.2 Phase Two Findings

This section provides findings and insights into Paolo, a single-subject case study, who at the age of 16, proceeded with the early admission application to the University of Toronto. Paolo graduated from the program within three years. This section also outlines Paolo's reminiscences of his childhood, his high school and university experiences, and the researcher's findings in relation to Phase One.

4.2.1 Historical Background

Paolo was born in South America, as the only child of the family. His mother tongue was Spanish; however, his mother also communicated with him in Italian which resulted in him developing communicative skills in Italian. Both of Paolo's parents held university degrees and highly valued education as a principle. Although Paolo was never officially recognized as "gifted and talented," neither in Canada nor South America, his work attitude, work ethics, behaviour, interactions with his peers, as well as his academic interests allowed the researcher to conclude that Paolo exhibited numerous characteristics of a gifted and talented student, as described later in this chapter. Moreover, the researcher's observations were echoed by other secondary school teachers who had Paolo as a student.

Paolo came to Canada with his mother. His father stayed in South America. During the conversations I had later on with Paolo and his mother (as Paolo's teacher), it seemed that Paolo was a member of strongly attached, loving, and supportive family. It was very apparent to me that Paolo's parents felt a strong necessity to sacrifice a lot to benefit Paolo's future and success in life. As Caplan et al. (2002) pointed out, "family appears to be a critical factor in the translation of innate gifts into achievement for gifted individuals. Relationships in the family, family emotional climate, and parental values have been identified as dimensions influencing the talent development process" (p. 126).

To understand better the educational context where Paolo developed his knowledge, skills, and competencies, it needs to be explained that he attended a small, alternative secondary school that offered individualized programs for domestic and international students. The school provided courses for a small number of students (5-15). The school

year was divided into five terms with 37 instructional days per each term. Each school day consisted of two longer sessions (periods): morning session (9:00 – 12:30) and afternoon session (1:00 – 4:30). There were also evening classes available for individual students on request. Nevertheless, all students had to complete 110 hours of instruction per course as per Ontario Curriculum expectations which meant that they had to allocate a lot of time and effort to their learning process not only at school, but also at home. Considering this, one can unarguably say that the program assumptions defining the secondary school were in line with an accelerated program, outlined by Colangelo (2010), who defined acceleration "as progress through an educational program at rates faster or at ages younger than conventional … allowing a student to move through a traditional educational organization more rapidly, based on readiness and motivation" (p. 182). Initially, the secondary school targeted mostly gifted and talented students who were usually very bored and/or rejected from public schools. However, due to decreasing numbers of such students, as well as economic reasons, more and more international students, as well as those with other exceptionalities (e.g., learning disabilities, mental disorders, and histories of addictions), started enrolling to the school.

I first met Paolo at this secondary school. At that time, he just turned 14. I remember the first day when I entered into a small classroom with only five or six students. Paolo was one of them. My first impression was that Paolo was rather a quiet and ordinary student. Not much seemed extraordinary about him, except for his formal attire. At first, he did not seem to manifest any particular signs of any exceptionality. He had been already signed up for one of the two courses I taught: Introduction to Entrepreneurial Studies (BDI3C). In the beginning, Paolo was indifferent about taking this course since business

studies did not belong to the area of his interest at all. He just wanted to find out more about the content and curriculum expectations to decide whether to continue this course or drop it. Furthermore, he openly made it clear to me that business studies in general were not something that he wanted to take, and the fact that he ended up in this course was simply caused by the lack of other options. (Author's digression: This seems to be very ironic now since Paolo has found success in a business career). After this course was successfully completed (his final grade was 88%), Paolo took more courses I taught, achieving the following final grades: ENG3U (85%), ENG4U (88%), CIA4U (85%), CPW4U (85%) and BOH4M (90%).

Paolo significantly mastered not only his English skills but also broadened his general knowledge in various courses and domains at a very fast pace. He completed all the Ontario Secondary School Diploma requirements within two years, achieving at the same time high final grades (Ontario Level Four) and a high overall average.

The decision to apply to university was made unexpectedly and spontaneously since initially Paolo was considering spending two years in Germany before applying to university at the regular age of 18. However, he decided to change his initial plans and apply to an undergraduate program. This change resulted directly in his early admission, meaning that at the age of 16, Paolo became a first-year student of the University of Toronto from which he graduated in three years at the age of 19.

4.2.2 Findings

The researcher was able to observe how Paolo mastered and developed his knowledge and broadened his perceptions and observations with every course he took at the school. It was an amazing opportunity to see how fast, effortlessly, and easily Paolo learned. Of particular interest was that Paolo did not appear to demonstrate greater difficulties with acquiring new knowledge, skills or competencies in English as opposed to his native language. It was the observation of the researcher that he exhibited a strong discipline, self-motivation, and high respect for knowledge and education in general.

Paolo's secondary school final grades may seem not too impressive if compared to the achievements expected from gifted and talented students. As per his secondary school transcript, his highest final grade was 93% (Canadian History in the 20th Century, French and Science) and the lowest was 71% (Functions and Relations). However, it may be hypothesized that the fact that Paolo managed to adapt and achieve high final grades in a very short period of time, at a very young age, and in a second language was quite extraordinary, given the average university entering grade is commonly 85% (Dehaas, 2013).

Another possible reason that Paolo's final grades were below the 95% range was that he was a very young student who experienced a cultural, educational, and social shock upon his arrival to Canada. Prior to his arrival, he had not had similar experiences in his life. Moreover, it was the first time in his life that he became completely isolated from his father for a protracted period of time. Considering the many challenges that he experienced, one may hypothesize that his final grades could be recognized as significant

since he proved to be ready for his academic success at high school, and later on, at university level.

As previously mentioned, although Paolo was never psychologically assessed and designated as a gifted and talented student, his attitude, work ethic, interactions with his peers and adults, intrinsic motivation, intellectual interests, creativity, and enhanced curiosity convinced me (given my knowledge of the relevant literature) that he exhibited numerous characteristics of a gifted and talented student. At this point, it seems critical to clarify that high academic achievement may be defined and approached differently in giftedness. The literature provides various standards and criteria to interpret and determine educational advancement and students' readiness for early university admission. For the purpose of this thesis, however, the researcher would like to narrow the analysis of "high achievement" as it is approached by American Early Entrance Programs (EEPs). One standard criterion to determine student's readiness for the early university admission is the student's Grade Point Value. According to the EEP at the University of Iowa, the requirement of a high school overall average is met if a student achieves the Point Value of 3.5+ (Muratori et al., 2003). That corresponds to the overall average of 80%+ (i.e., "excellent") that Paolo easily achieved.

Paolo moved "through curriculum materials, skills, and concepts at an accelerated rate" (Clark, 2008, p. 409), and he mastered various skills and completed all the Ontario Secondary School Diploma requirements, achieving a high overall average. While applying to university, students need to submit six best senior courses, including English 11 (ENG3U), and English 12 (ENG4U). Paolo's best senior level final grades were as follows: ENG3U – 85%, ENG4U – 88%, BOH4M – 90%, CHY4U – 88%, CPW4U –

85%, and SES4U – 91 (i.e., 87.83% average). Dehaas (2013) pointed out that the average university entering grade was 85% as per data from 48 Canadian universities. Therefore, Paolo's average was even higher than the university entering average.

As pointed out, the fact that Paolo was a student in several courses I taught gave me many opportunities to observe Paolo's intellectual development, behaviour, attitudes, and performance on daily basis. Together with the learning experiences provided in those courses, the researcher earned Paolo's trust and respect which consequently resulted in his openness in sharing personal opinions. Those were expressed freely, regardless whether they were of a general nature, course-related nature, critical to school management, or to other staff members whom he found very challenging to tolerate. Ironically, he particularly disliked his History teacher. In fact, and as he requested me to quote, "I didn't like him. I hated him!" Paolo explained that in his view, this teacher lacked not only solid and fundamental knowledge of history in his terms, but also, which he considered even worse, good teaching skills and methods.

During Paolo's high school years, the researcher was able to observe numerous instances of his curious and exceptional behaviour. First of all, his passion for learning about World War II, particularly the weapons used during that war, was quite unique and extraordinary for a teenager. In his free time at school, Paolo frequently read books from this field of interest. Those were mostly academic textbooks that required well-developed linguistic, cognitive, and intellectual skills to be comprehended.

Soon enough I realized that Paolo's vocabulary, as well as his verbal and written skills in English were advancing fast even in comparison with other Canadian-born students. The

fact that I was Paolo's English teacher gave me numerous opportunities to observe his intellectual development and academic performance. Considering his young age and linguistic background, Paolo's language skills seemed even more impressive. His written responses demonstrated insightfulness and complexity of observations. Questions he raised in classes were often complex and insightful. His verbal skills in English also kept improving. He willingly participated twice in "role-play" debates (a competition organized by the University of Toronto). The formula of this competition was to strategically carry out a verbal battle and, ideally, win it. Such debates enabled participants to demonstrate not only their strategic thinking skills, but also, their social, negotiation, and leadership skills. He was very excited to participate in these two events due to their formula.

Another anecdotal observation worth being mentioned was my English 12 class (ENG4U). After the summer holidays, the researcher instructed his students to respond briefly to a topic question, "What was your most memorable experience during the summer holidays?" This activity was assigned to be written in class only, mostly as a diagnostic strategy to assess students' spontaneous writing skills. Paolo wrote an eight-page response without any visible sights of effort. He just sat down and kept writing until he completed the task. In his response, he complained a lot about the social aspect of the canoe camp in which he had participated, about feeling isolated by his peers, and unfortunately, by his instructors, as well. According to his recollections, he was unable to establish close social relationships with anyone so he had to spend evenings alone. On the other hand, the theoretical concept and general assumptions for this camp (i.e., discipline, hard work) were highly appreciated.

Another instance of his performance in my ENG4U class was a Power Point presentation which each student had to create individually, and consequently, present it in class. The topic was, "My Favourite English Novelist." Paolo almost immediately asked for the permission to use "Ian Fleming" for his presentation, so I agreed. On the day of presentation, Paolo was ready. I must admit that his presentation was very informative and contained many interesting details, insights, rare anecdotes, and … it was very, very long, much beyond the time limit of 15 minutes. Paolo's presentation continued for 50 minutes or so. The positive outcome of this presentation was that all students and I enjoyed it. Since there were only four or six students in this class, the researcher had convenience of flexibility, and Paolo was allowed to continue and finish his presentation. This presentation helped me realize that Paolo was psychologically and intellectually mature even when compared with his "older" peers.

Other observations revealed that Paolo was very "picky", or even rigid, in obtaining clarifications. He was greatly dissatisfied and sometimes frustrated with obtaining superficial responses. One class is still well remembered by me. When the topic of "the principles of stock market" was introduced and discussed, Paolo was very curious about learning how technically and physically money flowed and changed ownerships while trading stocks. He wanted to know exactly, "step-by-step," how and when money was transferred from one account into another and how publicly traded companies could benefit from such transactions. Consequently, this class cost me a lot of time, patience, and in-depth research to satisfy his curiosity in answering this over-arching question.

In terms of Paolo's social development, he always seemed to lack strong and close relationships with his peers. As explained, the secondary school was a small, student-

centered school with only several students in a given class. In such an environment, it was more likely and easier to develop friendships, or at least acquaintanceships, since due to the low students' population at school, it was almost impossible to "hide in a crowd." During lunch breaks, the researcher most often witnessed Paolo sitting alone and reading books. He gladly had conversations with some staff members, administrators, or students who shared the same or similar values as his or just did not mind his presence. His 15th birthday party was also a very interesting event. The researcher happened to be invited, not knowing anything about what to expect. The party was arranged in a local restaurant. When the researcher entered the restaurant, he saw Paolo, his mother, and other adults (mostly teachers and school administrators) but none of Paolo's peers, friends, or classmates. As Paolo admitted recently, it was not a problem for him at all. He enjoyed the party very much and had no regrets whatsoever. He was comfortable and accustomed to be surrounded by adults.

Paolo's graduation was approaching, and as previously mentioned, the decision to apply to the University of Toronto was made spontaneously. As an international student, he was required to pass a standardized English proficiency test (TOEFL) which, due to a short notice, he took without any special preparation. This is a standard requirement for all international students to assess their general English skills and readiness for academic work. What he did manage to complete was a few practice tests, one or two days before the test date. Paolo's final score was very high, slightly above 110 (out of 120) which meant 91.7%+ overall average.

The first year at university brought some obstacles, difficulties, and frustrations for Paolo. As he pointed out, the first semester was a bit frustrating since the marks and grades he

was able to achieve were below his expectations. They were mostly in the low 70s. On the other hand, Paolo became very interested and active in extracurricular activities and students' clubs. He was disappointed that there were not many options for first-year students. His passion for his chosen disciplinary area was also demonstrated by routinely taking summer courses in order to complete the program and graduate within three years.

Finally, my overall experience at the secondary school as a teacher was very valuable for the purpose of this research because it gave me systematic and regular opportunities to witness how Paolo developed, improved, and mastered his various skills, perceptions and observations. Despite the fact that Paolo was an international student, he adapted quickly to the Ontario Educational System requirements and expectations. It was impressive to see how fast, effortlessly, and easily Paolo learned and how he did not show any greater problems with acquiring new skills in a variety of courses and domains. Unquestionably, he was able to achieve because he was extremely focused, self-disciplined, and highly and intrinsically motivated, with high advanced cognitive abilities and values for knowledge and education. His conscientiousness, efforts in academic achievements, discipline, and extremely high self-motivation led him to apply to and obtain an offer from the University of Toronto, and consequently, its acceptance. This is a good example of the full-time acceleration option (Robinson & Noble, 1992) that can assist students in being admitted to post-secondary educational institutions a few years earlier. Also, this is a good example of the affective cognitive model by Mendaglio (2013) who says that "achievement can be expressed in the following semantic equation: Intelligence-Effort-Achievement" (p. 6). According to Colangelo et al. (2010), it can be stated that Paolo's

early admission to secondary school and university represented an excellent example of "grade-based acceleration" (p. 186).

4.3 Characteristics of Paolo - Analysis

4.3.1 Case-Study Research Focus 1: How did the main participant fit the description of a gifted and talented individual?

As Paolo recalled, he was five years old when he started reading and writing. The rest of his peers usually were six years old or older. Galbraith and Wentzel (Clark, 2008, p. 171) suggest that there are many unique traits and abilities demonstrated by creatively gifted children, one of them being the invention of words, objects, or concepts. To the best of his knowledge, Paolo could not remember inventing any new words or concepts. In Venezuela, the regular age for children to enter elementary school is seven. Prior to that, children may optionally attend kindergarten. Paolo attended kindergarten one year earlier as per his family doctor's advice. The doctor suggested that due to the fact that Paolo was an only child, early socialization experiences with peers would reduce the possibility of him being a selfish, self-centered individual. Paolo had his own room at home which he could freely enter, play within, satisfy his curiosity, and develop his intellectual skills. Also, he had free and extensive access to a variety of resources that were provided for him by his both parents.

According to Paolo, as a child, he demonstrated high intellectual curiosity and used to ask many complex and insightful questions; as a result, he demanded equally complex and insightful answers. As he mentioned, he once got frustrated when he wanted to learn why mountains looked yellow at sunset. His mother explained that "the sun gets tired during the day, so it rests its arms on the mountains before going to sleep." He was upset later on

that she did not tell him that such an effect was basically caused by the Earth's rotation. He was no older than eight at that time. Another interesting anecdote illustrates his seriousness in obtaining informative responses. Paolo always wanted to feel like, and be treated as, an adult. He would wear neckties and dress shirts to look like James Bond or a businessman. When he was five or six, he even demanded once that his father write him a bank cheque. At the time, he did not understand the monetary and transactional role of a cheque; he just wanted to have a "grown-up document" addressed to him. Paolo was upset when his father wrote him a cheque for the value of "1,000 kisses." The reason for frustration was simple: Paolo knew that "kisses" were not a currency recognized by any financial institution.

Ever since he remembers, he has had a strong desire for command and control over people and situations. However, he recognized that he was not born with the leadership skills necessary to persuade others. For example, he always wanted to be the child charged with the responsibility of organizing soccer teams at recess and instructing team members on how to play. He felt slightly frustrated with the fact that others did not listen to him. During his teenage years, he made it his mission to become a leader. As he admitted, he had succeeded in achieving this to some degree. As explained, his success was determined by the fact that he was chosen by superiors to lead some teams (up to 92 members at the largest). On the other hand, he failed to become "popular" among those whom he had led because of his strict, unforgiving, demanding, and military-like leadership style.

My observation confirmed that with his wish for command and control came a tendency toward perfectionism (particularly in the relaying of information and communicating

ideas). This characteristic of gifted and talented students is often pointed out in literature (e.g., Robinson & Noble, 1992). Ironically, Paolo indicated that as a child he was not a perfectionist when it came to his personal belongings or his daily routines.

Paolo indicated that for many years, he used to play with small toy cars and airplanes to "assemble" an airport. He would control flights and take-offs and landings of individual aircrafts. It was a game that he preferred to play alone so that no one else's imagination "would intrude on his perfect idea." Together with the airport management, he would also draw logos for airlines on blank sheets of paper, and then, sell them as works of art. He printed signs in his room with "opening and closing" hours for his store. It is important to say that he took it quite seriously. When he realized that his parents were the only ones coming into his "store" and that they only wanted to "look" and not buy, he decided to turn the store into "a gallery" to charge the entrance fee. He was not pursuing wealth, though. He was pursuing the same recognition that an adult would receive for their creation. As he explained, that did not mean that he felt insecure, unloved, or neglected by his parents at any moment. "The exact opposite was true," he pointed out.

Paolo recalled that from a very early age, he perceived himself as "highly mature" for his age and capable of performing errands independently. By the time he was six, he could go alone to a restaurant, order, eat, pay, and return to his parents without any supervision. However, it was essential that his parents were at the very location where he last saw them; otherwise, he would feel scared and lost.

While competing, as he purposely pointed out, he always strived (even presently) to become the best he could be within any given category or domain. Thereafter, he made

efforts and strived to become even better. For example, if he arrived at an institution, he identified who the person in highest regard in "his" category or domain was (based on subject or task, not on age or tenure). Then, he aimed at achieving more than that person was able to. He was adamant that competition never caused him to cheat or act dishonestly.

Another characteristic to be addressed is his locus of control. As per his responses, Paolo's locus of control seemed to be predominantly internal. Only recently has he started to "let go" of certain things, often with contempt (e.g., he understands that this is out of his control "if some people in organizations are incompetent and cannot follow orders"). As mentioned, his locus of control has been always internal, and moreover, it even influenced his career choice in a financial advisory organization where he is completely responsible for his own business operations (i.e., searching for potential clients, establishing business relationships). He believes that his success is directly correlated to his efforts and intrinsic motivation.

Paolo's formal education may be considered as initially standard and consisting of all education levels: kindergarten, pre-school, elementary, secondary school (acceleration), and post secondary. In educational environments, as he perceived himself and the researcher observed, he was always very friendly and would only spend time around people he liked and/or admired. Paolo was only concerned about being accepted into play activities with his small group of friends. He did enjoy role-playing games and re-enactments, as he imagined them in his mind. However, it caused him a great frustration if other peers had different ideas in mind, refused to play his way, or failed to follow his imagination. He sometimes would defer this controlling role in large groups, but he never

considered them to be “the most glorious moments.” Formal education offered what he expected – passion for learning. He loved school. Some subjects were very easy, a few were challenging. At no point did he ever think it was too hard or difficult. As he grew older (i.e., from five to nine years of age), he became more and more selective of his teachers. He admired some, and the major criteria for his admiration were the following characteristics: highly knowledgeable and intelligent, authoritarian, respectful, kind, older than others, good and skilful lecturer. On the other hand, he had little respect for teachers, both at secondary school and university, who displayed a lack of knowledge, mediocre lecturing abilities, immaturity (especially among the younger ones), or a lack of authority.

Since Paolo never saw the practicality or realism in an imaginary friend, he had never had one. He would, however, imagine himself as a character in one of his favourite cartoon shows and interact with other characters. He labelled this activity as a game. There were various cartoons and fictional characters he liked, but the two main ones were Dragon Ball Z and Power Rangers. He also expressed admiration for the James Bond and Harry Potter franchises. His admiration for James Bond was already explained in the background section of this chapter.

In terms of emotional development, it needs to be emphasized that Paolo always wanted to have that “one good friend, close like a brother.” However, he was unable to find one. In contrast, he did not want to have a “real brother.” His mother was supposed to be “there” for him, “and for him only.” His only reported sensory oversensitivity was to classical music (particularly from music boxes). As soon as he heard such music (no particular titles), he would cry uncontrollably, though he indicated that he would feel no sadness or any other negative emotion. One anecdote he shared related to an urgent

telephone call his mother received from a kindergarten teacher when he was four years of age. Paolo was crying and the staff did not know why. As Paolo mentioned, the reason for his "perceived emotional outburst" was that a teacher had opened a music box. "This quirk of his outburst of cry" would ultimately cause his mother to pay close attention to what she heard on TV when Paolo was a child. She "would have to run across the entire apartment upon hearing a few notes just to change the TV channel before he started crying uncontrollably; and she rarely succeeded."

According to Paolo, his intellectual interests started crystalizing when he was around 12 years old. He would not stop reading history books in his spare time. He became fascinated with the study of Nazi Germany and World War II weapons. At times, his academic enthusiasm for this field of interest was misinterpreted as enthusiasm for Nazism itself. He pointed out that he was not bothered by this misinterpretation at all. He knew that he was not "a supporter" and his interests were purely academic. He also felt superior to others who were not, in his view, capable of seeing the difference between "supporting the idea" and "studying the idea."

4.3.2 Case-Study Research Focus 2: What exact factors were considered during participant's early admission to the University of Toronto?

Paolo did not remember being required to provide the Office of Registrar or Admission Office with non-standard documentation (e.g., samples of his work, portfolio, essay, etc.) nor was he or his mother invited for an interview. Therefore, it can be stated that he followed the standard application procedure, and non-standard admission procedures were not applied.

Due to the lack of responses from The Office of Registrar of the University of Toronto, this research focus could not be analysed in-depth.

4.3.3 Case-Study Research Focus 3: Was the decision on early admission beneficial for the participant and the university?

Paolo's university experience passed with relatively few setbacks, problems, or issues. The most challenging for him was the first semester during which his academic expectations and ambitions were much higher than the marks he achieved. To him, marks in "low 70s" were considered too low and disappointing. Nevertheless, Paolo blamed it all on himself and attributed it to a lack of experience with university assignments, poor planning, and unrealistic expectations. At the same time, Paolo was able to maintain strong academic focus, self-motivation, and an eagerness to improve his academic performance.

Overall, he enjoyed his university experience, deeply believing in the concept that higher education has an important mission since in his opinion, "higher education develops and shapes minds." Consequently, he expressed no regrets whatsoever in terms of his program of choice or its expectations. He did articulate a few negative comments related to his perceptions of the university - "inexperienced and disorganized faculty members who lacked advanced lecturing skills". Paolo was, and still remains, happy that he went to and graduated from the University of Toronto. He was ecstatic before, during, and after his first year of studies due to the fact that he was able to develop his interests in a specific disciplinary area.

To the best of his memory, there were no special modifications or accommodations offered to him. It was his perception that he was treated exactly the same as other students. He also pointed out that not all of his professors were informed about his younger age. Those who were aware found out about that fact after he finished their courses.

4.3.4 Case-Study Research Focus 4: What social, academic and emotional regrets, doubts and drawbacks did participant experience while at university?

Paolo felt inexperienced in scheduling and prioritizing assignments in the first semester, and his marks were in the low 70 range, much below his expectations. This did change shortly afterwards. Soon after entering university, Paolo also managed to develop several friendships with peer-students, TAs, and his professors. However, he indicated that at this point in time, he does not maintain regular contacts with his university professors. As he pointed out, he never exchanged contact information with faculty members after completing their courses. He did manage to make some friends with whom he still keeps in touch, but most of his early friendships just "eroded in time." Paolo related an incidence where he was not invited to a friend's birthday celebration. He indicated that he took the exclusion personally. His response to such "slights" was to terminate the relationship. He also admitted that some of his peers were aware of his age. From his perspective, the age difference did not have a significant impact on his social relationships beyond an initial element of surprise on the part of his peers.

With respect to extracurricular activities, Paolo participated for a year and a half on the executive committee of a students' association. He left this post because he had no

respect for the leadership. In his opinion, his colleagues were immature and incompetent. On the other hand, he proudly participated in university clubs and organizations, and in his third year, he assumed the role of the head in one of them. According to Paolo, it was at this point when he considered himself as "a self-made leader." He was also quite proud to be selected by his disciplinary professors as the undergraduate representative on the one of the committees for the search of a new department head. There, he met confidentially with professors, department heads, and the Dean of the Faculty in which he was enrolled. The Department also chose him to attend an important fundraising dinner. He felt that this recognition was a great honour and "trumped any and all academic success and recognition."

Paolo never regretted his decision to enter university earlier. He indicated that if he had to reapply, he would absolutely do so without any hesitation. He recalled that he loved his time at the UofT. He mentioned that in his opinion, the UofT is a "heaven of intellect." He intends to do a PhD degree in his chosen disciplinary area and become a university professor. Unfortunately, according to him, "this seems a simple fantasy at this point in time" mainly due to his current financial situation.

As Paolo admitted, he neither loved nor appreciated all of his university experiences. Needless to say, there would be some changes that he would like to implement if such an opportunity arose. For instance, as an admissions committee member, he would not hesitate "to enforce provisions to prevent unqualified students from entering university." He believes that "grade inflation has devalued the meaning of a high school average, and measures must be taken to account for this and assess the real value of a student. Entering university should be a major achievement in and of itself. High marks should be reserved

for a highly skilled and intellectual academic elite." He strongly believes that university is a place to "become educated," but not to be "trained for the workforce."

4.4 Analysis of Participant's Peers Responses

The researcher contacted four of Paolo's peers twice but only two responded: one male student, John (student's pseudonym) and one female student, Jennifer (student's pseudonym). Both participants admitted that they were initially unaware of Paolo's age. When Jennifer first met Paolo, she surmised that he was likely a year younger than her but was surprised to hear that he was three years younger. Jennifer found out about it during a conversation she had one day with Paolo and the mutual friend who had introduced them. John also learned about Paolo's age from their friend. When Jennifer was given the correct age information, she was impressed that such a young man was so driven in his academic career. As she pointed out, Paolo stood out as ambitious and practical, whereas his peers were rather foolish and undisciplined, even though they were older. Jennifer pointed out that perhaps learning of his age had changed her approach to the friendship in that it encouraged her to pursue a closer relationship based on shared values, such as education. John was also surprised when he learned about Paolo's age; however, it did not change his perception of Paolo.

Jennifer openly confided that Paolo was a very interesting young man whom she believed to be quite intelligent. In a public setting, he was extremely outgoing and social, being very engaged in his surroundings and with his peers. He was one of a few young men who pursued forming acquaintances with his professors and was a helpful member of the workgroups in which he participated. However, in his private life, she believed that Paolo was more reserved and shy. It was Jennifer's perception that despite his social

connections, he spent his time away from school or extracurricular activities with only a few people. From her conversations with him, she would say that he felt quite isolated in this community which had more formal friendships and less open, emotional expression. Being born to immigrant parents and raised with immigrant families, Jennifer found her experience of being integrated with Canadian-born children to be much the same. A term that came to her mind was "culture-shock," and in Paolo's case, she thought that being away from everything he had known was a lonely experience for him. John shares similar ideas as Jennifer's. He saw Paolo as a sociable and friendly person who was helpful to work with in workgroup projects.

What is more, Jennifer admitted that she did (and still does) value the fact that she had met Paolo, and he was her friend. As she pointed out, she did not make friends easily. It was also interesting for her to have met and talked to an individual from such a unique perspective. She found that Paolo, as a person, "made for a lively presence in any setting." The story of his accomplishments was, in her opinion, an inspirational one and a wonderful example of how the systems of society were flexible if one was willing to work hard. John also emphasized the value of this acquaintanceship due to Paolo's helpfulness and easygoingness.

4.5 Analysis of Participant's Professors Responses

Unfortunately, only one of Paolo's university professors responded to the researcher's invitation; however, he informed the researcher that he had retired and did not remember Paolo as his student. Consequently, he politely declined the invitation.

4.6 Analysis of Participant's Mother Responses

The participant's mother also did not respond to the researcher invitation. As Paolo explained, she was going through an emotionally difficult time in her life. One of her close family members had passed away, and she was struggling with the loss. She returned home.

4.7 Paolo and Early Admission

As previously explained, Paolo was admitted early to the Honours History Program at the University of Toronto at the age of 16. He met all the program requirements within three years which resulted in his graduation at the age of 19. As he reminisced, no special and/or non-standard procedures, policies, or options were requested from him during the early admission process. No admissions interview was requested of him or his parents. Moreover, no additional documentation or samples of his work (e.g., a portfolio, or standard tests scores) was requested. In his case, however, as a result of being an international student, he had to provide results of the English Proficiency Test (TOEFL), which still was a part of the standard/traditional admission procedure. As explained in the Research Findings section, in accordance with a general admission approach, the age of an applicant is not a decisive factor in early admission process as long as all other standard requirements are met.

4.8 Final Thoughts and Summary

After graduation, Paolo decided to enter the workforce and find a job. Such a decision was made due to financial reasons. International students must pay very high tuition fees, as he mentioned, approximately 4.5 times higher than those of "local," or Canadian

students. When the researcher contacted Paolo after his graduation and was informed that Paolo had started his employment within the business sector, it was a bit surprising. Paolo's reluctance, and a lack of any interest in business studies in secondary school, were still well remembered. Paolo pointed out that one of the hiring conditions was to pass Canadian Securities Test. The contribution of his disciplinary degree to his chosen occupation is questionable – did it prepare him for a business career or not? Paolo had to study two textbooks of 20 chapters each. Originally, he developed a plan to cover one chapter per week. However, two weeks before the exam date, his employer informed him about a date change. That came unexpectedly and meant studying one chapter per day for two weeks in order to cover all the required chapters. Paolo attempted this exam and passed it with the final grade of 68%. That could be provided as possible evidence of Paolo's multipotentiality (see: Table 5 in Chapter Five).

Chapter 5

5 Summary, Conclusions and Implications

This chapter examines conclusions, as well as implications, and recommendations for the future which the researcher has derived from Phase One and Phase Two of the research.

5.1 Summary of Methods and Procedures

As explained in details in Chapter Three, the study was conducted in two phases. The researcher developed the questionnaire and research questions for each phase based on the preliminary investigations of the literature. Phase One examined five research foci. Research Focus One questions determined what early admission procedures and/or policies for gifted and talented students were available, how universities approached and responded to gifted students' academic needs, and who within the university had the authority to accept gifted and talented students two to four years earlier. Research Focus Two examined which factors, variables, and documents were considered during a decision-making process (e.g., standardized test scores, final grades, interviews, letters of recommendations, extracurricular involvement, samples of work, etc.). Also, it was determined what academic and non-academic records were required when considering an application from a gifted and talented student. Research Focus Three examined how the admission authority was distributed within the university. Research Focus Four explored whether accelerated students received any special accommodations or program modifications and whether they were offered specially altered and designed transitional programs during their first semester/year at university. Finally, Research Focus Five questions were added and sent to the Office of Registrar of the University of Toronto

only. The purpose was to gather details and insights into Paolo's early university admission.

Phase Two was a single-case study of Paolo. The purpose was to determine whether Paolo exhibited characteristics of a gifted and talented student and whether his early admission to university was successful and/or beneficial for him and the university. To determine these issues, the researcher sought to interview Paolo, his mother, his university peers, and his university professors.

5.2 Summary of Findings

As hypothesized, the Phase One findings revealed that most Canadian universities who responded are open to accepting gifted and talents students if they apply for early admission two to four years earlier than the usual age. Moreover, most of these universities confirmed that the age of applicants does not matter if all other standard conditions of admission are met (i.e., completion of a secondary school). However, some problems begin when a gifted and talented student would like to apply for a university early admission before formal completion of secondary school. In such circumstances, universities either do not accept early applications or may proceed with non-standard conditions of admissions. In most cases, it was clearly stated that the very low population of gifted and talented students who would be interested in university early entrance/admission directly caused a lack of implementation of early entrance/admission policies and procedures. As a result, such applications are considered on a case-by-case basis. It is also important to mention that in most universities, the decision as to whether to extend an offer to an applying student rests with the university Registrar.

The literature review, together with the Phase Two findings, indicate that the option of university early entrance/admission can be critical for some gifted and talented students. These students can benefit not only intellectually, which seems obvious, but also emotionally, psychologically, and socially. They feel more accepted by their peer groups, and they can benefit from participation in numerous clubs which impacts their psychological development and improves their social interactions.

5.3 Phase One Conclusions

Findings from Phase One of the study were instrumental in assisting the researcher to draw conclusions and possible recommendations to be considered in implementation of the early admission procedures and policies. It is anticipated that this research and its findings will provide not only gifted students and their parents with insights into the early admission process, but also university decision makers with broader perspectives of the necessity to implement early admissions procedures.

Firstly, the research revealed that the early admission policies/procedures to Canadian universities are not receiving much attention and concern. Most responders explicitly admitted that early admission policies do not exist, and there are no intentions of their development and/or implementation. The most frequently mentioned reason was a relatively small population of gifted and talented students who could qualify under this category. Moreover, the current population of gifted and talented students who seek early admissions is insignificant. Therefore, the implementation of early admission policies/procedures seems economically and practically unnecessary. According to the findings, there is no indication that there will be a higher demand for such specific types of programs in the foreseeable future. Numbers of early admitted students also indicate

that universities approach early applicants only on a 'case-by-case" basis, and for the time being, this seems to be a satisfactory solution. However, in broader statistical terms (see: Table 2), this argument seems to be a fallacy that could be refuted. As presented, the population of gifted students who could theoretically proceed with early university admission applications ranges between 21,300 and 33,900 across Canada.

Another conclusion is that the distribution of gifted and talented students admitted under early entry policies differs significantly amongst the provinces. In smaller provinces, such as Prince Edward Island, Newfoundland, and Labrador, the total population of university students is amongst the lowest across Canada (note: there is only one university in each of these provinces). Ironically, the University of PEI does have early admission policies/procedures even though it seems very unlikely for that university to receive many applications for early admission in comparison with Ontario or Quebec universities which account for the largest number of university students in Canada.

There is an obvious discrepancy between potential early admission applicants and the factual ones (between 0 and 4 per university). This is more likely caused by existing Provincial Educational Systems which, as a principle, do not willingly allow students to move through educational systems faster (i.e. at an accelerated, or even radically accelerated rate). The research by Kanevsky (2011) showed that acceleration is supported by 76.1% school districts in Canada, but only "32.7% of districts across Canada have one or more students graduate from high school early" (p. 173). Across Canada, gifted and talented students are generally provided with enrichment options that do not lead to earlier graduation. Acceleration would definitely give gifted and talented students more options and opportunities to graduate from secondary schools earlier, and as a result,

apply to universities earlier. As such, a lack of secondary school options for youth who are gifted and talented is a major obstacle that prevents them from seeking early admissions to universities.

It is important to mention that all universities willingly accept applications from gifted and talented students who want to commence their undergraduate programs two to four years earlier even though formal procedures/policies have not been implemented. Their justification for doing so is that they seek to attract the "brightest and best" of students. Early admission policies/procedures could be another way to attract "high-calibre" applicants who would like to apply two to four years earlier. The doors are always open for such students even now, although one might argue that these options are not made highly visible to potential applicants.

Most universities also provide some extra support to address the needs of younger students if they are accepted. The support is mainly focused on students' social and emotional well-being and health although more academically-oriented options are also available (e.g., academic advisors and counsellors, mentorship opportunities with professors and graduate students, etc.). It is critical to mention here that program standards are never compromised in favour of gifted and talented students at any of the universities surveyed.

The age of an early admission candidate, as commonly mentioned, is not a decisive factor in the early admission process as long as other standard requirements are met. This strongly suggests that universities are fully aware that accelerated students may and do perform very well academically.

Another conclusion of the study is that across Canadian universities, authority as to the final decision on early admission is consistent and synchronized, and it is granted to the same offices or positions within each university. This undoubtedly is an efficient solution, and with the low numbers of accelerated students searching for early university admission, it currently seems sufficient. What would happen, however, if universities started receiving a higher volume of early university admission applications? What if a "case-by-case, or "ad hoc" procedures were no longer sufficient to respond to the needs of gifted and talented students? Needless to say, the process of early admission is even now time-consuming since it requires the two-step early admission procedures to be followed: standard/traditional and non-standard/non-traditional. Non-traditional/standard procedures are more complex since they demand that additional documentation be requested and evaluated, extensive consultation across the university be held, and arrangement of extra academic and social support arranged.

As mentioned in the research findings, at present, in most Canadian universities, the only two options that could be officially used by a gifted and talented student to be admitted early are the Home-Schooled/Educated Learner Program and Headstart Entry. The Home-Schooled/Educated Learner Program, in particular, offers the most flexibility for gifted and talented students who may not fit in a regular classroom environment. However, as the researcher indicated, a third option exists, and this is the alternative and private educational system. If well programmed, it may respond to the needs of gifted and talented students and give them opportunities of acceleration, early secondary school graduation, and early university admission. The only problem, of course, is cost; fees are expensive and 100% of those fees are paid by the students' families.

5.4 Phase Two Conclusions

5.4.1 Paolo and Characteristics of Gifted and Talented Learners

The analysis of results showed that Paolo manifested many characteristics of a gifted and talented student, and his early admission to the University of Toronto benefited his intellectual, social, and emotional development. Reis and Housand (2008) developed a list of most recurring characteristics of gifted and talented learners across three domains: intellectual/academic, affective/emotional, and creative. Table 5 below lists those characteristics and specifies which ones were explicitly documented and observed in Paolo. Given the data presented earlier, it seems clear that Paolo exhibits most of the recurring characteristics of gifted and talented learners. Extrapolating from these findings, it would also appear that although Paolo has never been formally psychologically assessed for giftedness, he would likely meet the diagnostic criteria as outlined by experts in the field, as there is documented evidence of characteristics in each of the domains.

Table 5: Recurrent Characteristics of Students Who Are Gifted and Talented and Paolo's Manifestations.

Characteristics	Paolo's Manifestation
Positive Characteristics	
1. Intellectual/Academic	
• Unusual alertness in infancy and later	-
• Early and rapid learning	X
• Rapid language development as a child	X
• Superior language ability - verbally fluent, large vocabulary, complex grammar	X
• Enjoyment of learning	X
• Academic superiority, large knowledge base, sought out as a resource	X
• Superior analytic ability	X
• Keen observation	-
• Efficient, high-capacity memory	X
• Superior reasoning, problem solving	X
• Thinking that is abstract, complex, logical, insightful	-
	X

• Insightful, sees "big picture," recognizes patterns, connects topics	X
• Manipulates symbol systems	-
• Uses high-level thinking skills, efficient strategies	-
• Extrapolates knowledge to new situations, goes beyond what is sought.	X
• High concentration, long attention span	X
• Greater metacognition (understanding own thinking)	X
• Advanced interests	X
• Needs for logic and accuracy	X
• Wide interest, interested in new topics	X
• High curiosity, explores how and why	X
• Multiple capacities (multipotentiality)	
2. Affective/Emotional	
• High career ambitions	X
• Expanded awareness, greater self-awareness	X
• Overexcitability	X
• Emotional intensity and sensitivity	X
• High alertness and attention	X
• High intellectual and physical activity level	X
• High motivation, concentrates, perseveres, persists, task oriented	X
• Active-shares information, directs, leads, offers help, eager to be involved	X
• Strong empathy, moral thinking, sense of justice, honesty, intellectual honesty	X
• Aware of social issues	X
• Reflectiveness	-
• Good self-concept – usually	X
• Strong internal control	X
• Independent, self-directed, works alone	X
• Inquisitive, asks questions	X
• Excellent sense of humour	X
3. Creative	
• Imaginative, creative, solves problems	X
• Preference for novelty	-
Negative Characteristics	
1. Intellectual/Academic	
• Uneven mental development	-
• Interpersonal difficulties, due to often intellectual differences	X
• Underachievement, especially in uninteresting areas	X
2. Affective/Emotional	
• Nonconformity, sometimes in disturbing directions	-
• Perfectionism, which can be extreme	X
• Excessive self-criticism	-
• Self-doubt, poor self-image	-
• Variable frustration and anger	-
• Depression	-

It cannot be denied that Paolo was brought up in a very supportive and stimulating environment. From his early years, Paolo was surrounded by both parents who loved him very much, tolerated and supported him in all possible ways, and provided him with a

highly stimulating environment. During our interview and interactions, Paolo never referenced anything about having been criticised by his parents for his unusual and/or challenging behaviours. Since both Paolo's parents held universities degrees, it can be concluded that Paolo was also "equipped" with the "genetic inheritance" (Edmunds & Edmunds, 2008) that resulted in his extraordinary intellectual development.

As mentioned, Paolo's secondary school final grades were below the 95% range, and therefore, they cannot be considered as meeting one of the criteria for giftedness. However, given the context, this is not unexpected when consideration is given to factors such as academic goals accomplished within short time-lines, relative youth, and immigrant and second-language status. In consideration of these factors, his academic accomplishments could be considered "significant" particularly given his academic success at the university level.

Giftedness, as pointed out by Robinson and Noble (1992), is a domain-based phenomenon. Exceptionally high abilities are usually demonstrated in just one domain (e.g., music, literature, engineering, etc.,) and rarely in several domains; in other words, these youngsters demonstrate asynchronous development. Chronological age and development in emotional, intellectual, social, and physical domains may be highly variable and at different levels. Paolo's asynchronous development was evidently seen on his secondary school transcript. His final grades in "Humanities" were significantly higher than in "Sciences."

If Paolo applied to one of the EEPs in the USA, his average would be sufficient to meet the admission criteria for at least some of them. According to the EEP early admission

policy at the University of Iowa, students with the minimum GPA 3+ can apply for early admission (Muratori et al., 2003). Although Paolo took neither the SAT nor CAT standardized exams, his standard English proficiency test (TOEFL) score of above 110 (i.e., 92+%), as well as his overall average, were high enough to satisfy the early admission policy to the University of Toronto.

While at the University of Toronto, Paolo was not provided with any specific accommodations or support. One might conclude that if additional supports had been in place, his university experience might have been even more positive. Not only would it have helped him reduce unnecessary stress or frustration, but it would have positively impacted his academic experience especially during his first semester when he struggled with the transition, new expectations, and work demands.

After his graduation, Paolo began his employment as in the business industry. He had to take Canadian Securities Exam. As mentioned, his score was 68%. Although his attained score may seem unimpressive, given that Paolo totally lacked prior academic and professional knowledge and experience in finance and took the examine with only short notice, his accomplishments are not inconsequential. One could argue that this is the evidence of Paolo's multipotentiality (i.e., his intellectual development prepared him to perform efficiently in a variety of non-related domains).

5.5 Implications and Recommendations for the Future

Based on the research, the immediate implications to be considered with regards to early admission policies/procedures are:

1. Teachers on all levels of the educational system (i.e., kindergarten, elementary, middle, and secondary school) should stay alert while delivering curriculum. The odds are that they will have one or more gifted and talented student/-s in their classes during their careers. Appropriate and close observation from the beginning, as well as early intervention, will likely lead to students' success and positive experience whereas ignorance will have to lead to students' frustration, isolation, conflict, or even withdrawal.
2. Guidance counsellors should attempt to help prepare secondary school students for the university transition (Mendaglio, 2013).

3. Gifted and talented students are provided in the K-12 with extra support, accommodations, and developmental options as a response to their exceptionalities. Unfortunately, upon secondary school graduation, the level of extra support becomes significantly reduced and/or limited. For the benefit of gifted and talented students, universities should boldly move to accept applications from younger gifted and talented students. Transparency and synchronicity in providing extra support and accommodations for this group of students should not be regulated on a "case-by-case" basis, even though the numbers of accelerated students are still insignificant. Most universities have already in place extra support and accommodations for students with other exceptionalities (e.g., learning disabilities, ADHD). Accommodations, such as extra time for assignments, tests and quizzes, alternative settings for instruction and assessment, and alternative assignments, are already a common practice. They indeed may be seen as "compromising standards of higher education." But, are

they really? The tendency is that more and more students are being diagnosed with various exceptionalities due to more and more sophisticated diagnostic tools and assessment techniques. Since they more sophisticated, this directly results in increasing numbers of students with various exceptionalities. This seems exactly what the future holds in store for educational administrators at all educational levels.

4. At relatively lower costs, it is possible to develop and provide extra support options for first year younger gifted and talented students entering university. They could include special residence halls, designated lounges, and counsellors. Unquestionably, such options can benefit students who, due to their age, may not fully understand the complexity of university expectations and demands. Moreover, maybe the time will come to make a decision and develop a few transition programs in Canada (such as those in the USA) to attract highly gifted and talented students while they are still younger.
5. The discussion on 21st Century Learning has been initiated, and it seems that the future of not only primary or secondary education but also higher education is relatively uncertain and unknown. On the one hand, different school boards become more flexible in offering various educational options for students, such as on-line courses. On-line courses have become just the everyday practice even though two or three years ago, they were completely unavailable. The Toronto Catholic District School Board has developed and offers most of its courses on-line. Obviously, it may be the option and a positive solution for some students who do not benefit from a regular classroom environment. The tendency is that

greater flexibility, alternative options, support, and accommodations are being provided to exceptional students to secure their success and enhance their engagement. From this perspective, the early admission policies/procedures will also have to be addressed sooner rather than later.

6. Undoubtedly, it is the unarguable fact that all universities compete intensively to attract "the best" of "the best." It may be possible that in future, since the age of applicants is not a decisive factor, it will be critical for some universities to actively recruit younger and younger applicants, and not only for academic, but also, for financial reasons. Literature and this research clearly support the occurrence that in some circumstances, it is possible or even necessary to admit students as young as 13 years old. It is beneficial not only for such students but also for universities. The literature provides numerous examples of accelerated or radically accelerated students who graduated from their undergraduate or graduate programs only because they started their post-secondary education several years earlier. In other words, if it had not been for acceleration or radical acceleration, some gifted and talented students would not have been able to graduate from any formal educational institution. This situation means that this group of gifted and talented students still remains relatively unrecognized as potentially generating intellectual and financial profits. Therefore, it would be beneficial for universities to admit students earlier, and create for them an intellectually, emotionally, and socially stimulating environment.
7. This research showed that many options are already in place and some could be easily adapted and implemented as a response to gifted and talented students'

needs. What could be done immediately and without additional costs to encourage gifted and talented students to consider early admission is to provide relevant information explicitly on websites. In many instances, it is not clear or self-explanatory whether or not universities accept applications from 16-year-old students.

8. The research undeniably confirmed that age of undergraduate candidates is not a factor in the admission process; therefore, this must not be a concerning aspect. The most important factors are regulated by a given province or by standard admission requirements that must be met before, during, or after admissions. It must be emphasized, the two currently existing options for students who would like to be admitted two to four years before regular age are: 1) private alternative schools and, 2) home-schooled learners. These two non-standard options allow gifted and talented students to be accelerated, or even radically accelerated, and consequently, satisfy and meet all the secondary school diploma requirements several years earlier. Private alternative schools which definitely deal with lower numbers of students can much more easily respond to the needs of students who are located on this side of the exceptionalities spectrum. Moreover, the higher level of flexibility, as well as a more individual approach, could benefit gifted and talented students and provide them with the option to graduate from high school earlier.
9. As mentioned, another finding revealed that the home schooling may also be a good option for some gifted and talented students, particularly for those who may suffer intellectually, emotionally, and socially in a regular school environment

that mainly concentrates on average learners. Needless to say, a really devastating fact does remain. Gifted and talented students who naturally outperform the majority of students may be left on their own. Home schooling, as mentioned, could be a good alternative for students who could develop and master their skills faster on the condition that home-school environment meets highest educational standards and competencies.

10. Finally, curricular flexibility that exists in some alternative schools can lead to gifted and talented students' early university admissions, as it happened to Paolo. Gifted and talented students cannot benefit from early admission if they are kept in the formal educational system (K-12).

5.6 Limitations

This research conducted for this thesis has several limitations. To the researcher's surprise, the number of responders was definitely below expectations (16.33%). It is obvious that if most contacted Registrars' had responded, the findings would be more accurate and complex. However, findings of the on-line research, as well as received responses, were consistent with expectations. Moreover, the fact that the researcher was unable to receive information from all planned sources (i.e., participant's mother, his university professors, and the Office of Registrar of the UofT) might have impacted the research findings as well.

The research phases of this thesis were also postponed by two academic years due to several factors. This delay could have resulted in not obtaining responses particularly from the participant's professors who understandably might not have remembered one student. The greatest regret, however, that the researcher experienced was not to receive

responses from the participant's mother. Her insights and observations would unarguably benefit the overall quality and accuracy of this research and its findings. Having had the opportunity to meet with the participant and his mother on several occasions prior to undertaking this study, it could be definitely concluded that the research would obtain some unique information and crucial insights into the participant's childhood had the mother participated.

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Appendices

Appendix A: Ethics Protocol

SECTION 1 PROJECT REGISTRATION

1.1	Project Title
Canadian University Early Admission Policies for Gifted and Talented Students	

1.2a	Anticipated Project dates	Start Date	July 2011
		Completion Date	December 2012
1.2b	While all protocols are dealt with as quickly as possible it is helpful to know in advance about pending agency deadlines. Indicate if there is a specific funding agency deadline by which approval is required.	Pending deadline date	December 2012

1.3	Principal or Lead Investigator, or Sponsor of Student's/Visiting Scholar's project at this site. (PI must be a faculty or staff member in the Faculty of Education. If this is a student project, the faculty advisor is the Principal Investigator. Sponsors of Visiting Scholars should be the Dean of the unit where the visitor is primarily located.)
PI Name	
Title & Position	
Email	
(Please complete this section if this is a student project or thesis.)	
Student Name	
Course / thesis / project	Thesis
Address	
Telephone	
Email	

1.4	Signature of Principal Investigator attesting that:
1.	all co-investigators have reviewed the protocol contents and are in agreement with the protocol as submitted;
2.	all investigators have read the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans (TCPS 2; 2010) and the UWO Guidelines on Non-Medical Research Involving Human Subjects and agree to abide by the guidelines therein;
3.	the investigator(s) will adhere to the Protocol and Consent Form as approved; and
4.	the Principal Investigator will notify the Faculty Research Ethics Board of any changes or adverse events/experiences in a timely manner;
5.	the study, if funded by an external sponsor, will not start until the contract/ agreement has been approved by the appropriate university, hospital or research institute official.
Signature	Date

1.5	List all local co-investigators and collaborators. Include research personnel only if they have a significant role in the conduct of the study. **Expand chart as required.**		
Name	Title/Position	Degrees	Role

1.6a	Is this a multi-centred study?	YES	
		NO	X
1.6b	If YES, who is the Principal Investigator or Project Leader for the entire study? Provide name and contact information.		

1.7a	Is this a student project? i.e., is completion of this project an academic requirement for a course or degree?	YES	X
		NO	
1.7b	If YES, please describe the course or degree. (e.g. name of course, Honours BA paper, Masters or PhD theses etc.) and the student's role in the research (e.g. questionnaire design, data collection, interviews, data analyses etc.).		
Masters of Education (data collection and analysis)			

1.7c	If YES, Signature of Student attesting that they:
a.	have read the Tri-Council Policy Statement and the UWO Guidelines on Non-Medical Research Involving Human Subjects and agree to abide by the guidelines therein;
b.	will adhere to the Protocol and Consent Form as approved by the REB; and
c.	will notify their supervisor and the REB of any changes or adverse events/experiences in a timely manner;

_____ _____

Signature Date

1.7d	Is this a Visiting Scholar's project?	YES	
		NO	X
1.7e	If YES, Signature of Visiting Scholar attesting that they:		
a.	have read the Tri-Council Policy Statement and the UWO Guidelines on Non-Medical Research Involving Human Subjects and agree to abide by the guidelines therein;		
b.	will adhere to the Protocol and Consent Form as approved by the REB; and		
c.	will notify their Sponsor and the REB of any changes or adverse events/experiences in a timely manner;		

_____ _____

Signature Date

SECTION 2 FUNDING

2.1	What is the status of the funding or support for this project? *Since preparing and reviewing a protocol takes a significant amount of time, we strongly recommend waiting to apply for ethics approval until after a project submitted for funding has*	Funding not required	X
		Application Pending	

	received notification that the funding has been approved.		
		Funded	
		In-Kind contribution only	
	If Application Pending; Funded; or In-Kind Contribution fill in chart below.		
2.2	Name of funding agency(s) or sponsor(s)		
2.3	Name of investigator receiving/applying for funding		
2.4	Date submitted for funding.		
2.5	Agency/sponsor reference number if known		
2.6	Title as submitted to funding agency(s) if different than title of this ethics submission		

SECTION 3 PROJECT DESCRIPTION

Complete each section under the appropriate heading. Be succinct and adhere to the page limitations. DO NOT DIRECT THE COMMITTEE TO 'SEE ATTACHED'. DO NOT USE TEXT COPIED FROM FUNDING APPLICATIONS OR STUDY PROTOCOLS UNLESS IT PROVIDES A SUCCINCT SUMMARY OF THE METHODOLOGY APPROPRIATE FOR ETHICAL REVIEW AND DEALS WITH ETHICAL ISSUES. Copies of detailed proposals submitted to a funding agency or sponsoring agency protocols will not be reviewed as the ethical issues are not often adequately addressed in such documents and they frequently do not provide a succinct summary as noted above. Your protocol will be RETURNED UNREVIEWED if the project description information is incomplete, illegible or improperly filled out.

3.1a	Is this a sequel to previously approved research?	YES	
		NO	X
3.1b	If YES, indicate the previous ethics review number(s):		
3.1c	If YES, describe differences from the previously approved protocol(s):		

3.2	Provide a brief one or two sentence overview of the proposed research describing the population, intervention and outcome. *E.g. Children 5 to 8 years of age will view a video about animal mothers and their babies then be asked if they think there are any similarities between an animal mother's behavior and a human mother's behavior. The research will take place in the children's classroom.*
	1. Potentially 95 Registrars from Canadian universities can be contacted to collect data on early admissions, if such information is not available on-line. 2. Paolo (student's pseudonym, a student from Venezuela who at the age of 16 was admitted to the Program of History at the University of Toronto) will be interviewed as well as his mother, university colleagues and professors to determine his admission process and experiences.

3.4	Background & Justification – Summarize the scholarly and scientific validity of the study. (1 page maximum)

A variety of studies conducted by researchers, such as Clark (2008), Colangelo, Assouline & Marron (2010), Colangelo & Davis (2003), Gross & van Vliet (2004, 2005), Noble, Arndt, Nicholson, Sletten & Zamora (1998/1999), Noble & Childers (2008), Noble & Drummond (1992), Noble, Vaughan, Chan & Childers (2007), Olszewski-Kubilius (2002), Robinson & Noble (1992), and VanTassel-Baska (2006), have proven that gifted and talented students demonstrate uniqueness in their extended intellectual and cognitive potential (Noble & Childers, 2008), high and intrinsic motivation (Robinson & Noble, 1992), and enhanced creativity and curiosity (Noble et al., 2007). In addition, some are characterized as having similar emotional and social needs and expectations (e.g., hypersensitivity, tenderness, and acceptance) (Noble et al., 2007). There is no doubt that the exceptionalities and characteristics of gifted and talented students necessitate

special educational modifications, curricular practices, adaptations, variations, and even early entrance programs due to their need and desire for early (2 or more years earlier than usual) academic work (Olszewski-Kubilius, 2002).
It is not surprising that research conducted to assess the benefits and advantages of participation in EEPs has revealed that benefits definitely outnumber the drawbacks (Shepard et al., 2009). Students who take advantage of acceleration or radical acceleration "achieve exceptional academic outcomes, do not 'burn out', and do not suffer from gaps in their knowledge or skills" (Gross & van Vliet, 2005, p. 161). A more surprising finding is that although socialising with peers has sometimes been portrayed as an unpleasant experience for the gifted and talented, socialising with older classmates during acceleration, or even older college students seems to result in much more positive social experiences. "[T]here is no indication of social and emotional maladjustment arising from well-planned acceleration programs" (Gross & van Vliet, 2005, p. 162-163).

3.5	Objectives and Hypotheses: Provide a clear statement of the purpose and objectives of the project. (1 page maximum)

The fundamental question which needs to be raised is whether gifted and talented students obtain special treatment and accommodation if admitted earlier than the usual age to Canadian universities. Numerous researchers have demonstrated that gifted and talented students perform much better and reach their full potential if "submerged" in the appropriately stimulating environment (Gross & van Vliet, 2005).
The existing and early entry policies and/or procedures in Canadian universities will be investigated and carefully examined according to the above-mentioned data and criteria. Obtained conclusions and outcomes will be presented and compared in a table and/or bar graph format. This will include those elements that are most frequently applied in the early admission processes as well as those that are least and/or uniquely applied. Based on the analyses, suggestions and/or possible recommendations to be considered during the early admission process will be presented. This research and its findings are expected to provide a broader perspective of the process of early admissions not only gifted students and their parents, but also university decision makers. Additionally, the purpose of the thesis is to determine major conclusions and possible recommendations to be considered and/or implemented in early admission processes. As Glazer & Shore (1984) concluded "university need not fear for the academic success of younger-than-average students whom it might admit … evidence elsewhere speaks equally for the potential success of young students of high ability who skip 3 or 4 years of high school and do not hold a high school leaving diploma" (p. 8).

3.6	Methodology – Describe the study design and what participants will be asked to do at each stage of the research. Investigators are encouraged to use flow charts or diagrams in their descriptions. (2 page maximum)

The study will be conducted in two phases. Phase I is to collect and analyze data from Canadian universities about early admission policies, and Phase II is a single-case study of Paolo (student's pseudonym), a student from Venezuela who at the age of 16 was admitted to the Program of History at the University of Toronto.

The methodological approach is also to collect, examine and analyze data and information which is already available on-line at university websites. The main reason is that there is no formal need for obtaining a special permission to access such data. As a result, this new approach is expected to simplify and reduce the process of gathering data, as well as reduce both the time I am going to need to gather such data and the cost of the study.

Phase I – Policy Data Gathering
This phase will include the analysis of the early entry policies, procedures and practices currently existing in Canadian universities. I will determine what elements within such procedures and policies are applied to admit highly gifted and talented students to undergraduate programs. In order to learn about early university entry practices for highly gifted and talented students in Canada, first, I will investigate universities websites (on-line study) and in case of the lack of such information, or in case such information is not clearly presented/explained, I will need to request such information either by a letter, or an e-mail

from the Registrar's Offices of Canadian universities (n=95) which are official members of the Association of Universities and Colleges of Canada.

Phase I – Data Analysis
The general assumption is that each Canadian university has developed its own early entry or admission procedures, or that such procedures have not been created at all. It is possible that a given university may make its decision of acceptance on a case-by-case basis or only if need be. The second assumption is that such procedures, if they have been implemented, have been adapted to meet the particular needs and requirements of different programs at the undergraduate level. Consequently, it means that within one university there may be several early entry procedures. This raises the question of synchronicity. Does a university use the same methods, tools, and instruments for all highly and profoundly gifted students, or do they differ from faculty to faculty? The collected data will allow me to develop representative situations and reach informed conclusions as to existing early admission practices, policies, strategies, and procedures. Moreover, I will be able to obtain concrete details on commonly used practices.

Phase II – Single-Subject Case Study Data Gathering and Analysis
This phase will present a detailed case study of Paolo (student's pseudonym), a student from Venezuela, who at the age of 16 was admitted to the Program of History at the University of Toronto. I will describe the particular procedures that were applied in the case of Paolo's admission process, and I will provide descriptions of as many of Paolo's university experiences as permissible within my thesis timeframe. Both Paolo and his mother were informally contacted to learn about a general outline and ideas of my thesis. The role of Paolo's was explained and both of them willingly expressed their interest in participation in such a study.

3.7	Address the strengths and weaknesses of the selected design. Specifically indicate why a particular design was selected. (1 page maximum)

Strengths:
It is very likely that most Canadian universities have been admitting gifted and talented students on regular basis; therefore, they should have such policies implemented;
Paolo and his mother want to willingly participate in the study; they understand the value of scientific research;

Weaknesses:
Not all information may be available on-line. Contacting all registrars may be a time-consuming activity;
Some universities may have not developed procedures to address gifted and talented students; such students are not treated exceptionally.

Reason:
As Gay et al. (2009) explained, a case study is a quantitative research approach which is a "unique,... more concrete,... tangible and illuminative" (p. 426) technique of research. Data collection will include interviews, and the analysis of samples and artifacts. The case study is the appropriate method if a researcher wants to address a descriptive or explanatory question such as what, how, or why something happened (Gay, et al., 2009).

3.8	References – If possible please restrict the list to ten of the most relevant references. References must contain the author, title of article, journal and page number(s).

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12. Stanley, J. C., & McGill, A. M. (1986). More about "young entrants to college: How did they fare?" *Gifted Child Quarterly, 30*, 70 – 73.
13. VanTassel-Baska, J. (2006). A content analysis of evaluation findings across 20 gifted programs: A clarion call for enhanced gifted program development. *Gifted Child Quarterly, 50*, 199 – 210.

3.9	Analysis – Discuss how the data will be analyzed. (1 page maximum)

1. Collected data will be grouped into commonly used procedures while admitting gifted and talented students. The purpose is to find out what elements in the admission process of students who are gifted and talented are the most and the least used, which procedures are the most and least frequently used.
2. Paolo, his mother, university professors and colleagues will be interviewed and all possible and available artifacts will be analyzed to determine whether Paolo could be recognized as "gifted." HE demonstrates numerous characteristics of "gifted and talented;" however, he has never been officially diagnosed as such.
3. The collected data will help to determine whether early admission is a positive and stimulating experience for younger students.
4. The data will be analyzed and reported using descriptive statistics.

3.10	CONTINUING REVIEW		
3.10a	Are the risks associated with this project sufficiently low that the project requires only an annual review?	YES	X
		NO	
3.10b	If NO, please note that the proposal cannot be reviewed by the Faculty of Education REB. You must submit your ethics review to the UWO Non-Medical Research Ethics Board. Please indicate why you feel a more frequent review is required.		
®			
3.10a	If NO, please indicate your recommendation as to the appropriate frequency of the continuing review.	EVERY 6 MONTHS	
		EVERY 3 MONTHS	
		EVERY MONTH	

SECTION 4 RESEARCH PARTICIPANTS

Sample Size: 95 universities, 1 student (and his mother, his university colleagues and professors)		
4.1a	Number of subjects in entire study	96
4.1b	Number of subjects at this centre (if a multi-centred study)	
4.1c	Number of centres participating	95

4.2	What is the rationale for using the intended number of subjects?

The 95 universities are official members of the Association of Universities and Colleges of Canada.

4.3a	Was a formal sample size calculation used?	YES	
		NO	X
4.3b	If YES – give the actual calculation and a reference for the formula used. If, instead of a calculation, a table in a published source was used, provide the reference(s) and table reference numbers. If a sample size calculator was used, provide a description of the software package used and/or the URL for internet-based calculators.		

4.4	The study will involve: (check all that apply)	
Incompetent or unconscious participants		
Minors (under 18)		
Institutionalized persons (e.g. prison, extended care facility)		
UWO Psychology Pool		
Participants with language barriers (e.g. illiterate, non-English speaking, dysphasic)		
Employees or students of UWO or the institution where the study is being carried out	X	
Patients		
Pregnant women		
Participants recruited in emergency or life-threatening situations		
Others whose participation may be problematic for some reason (describe)		

4.5a	Will the study involve males AND females?	YES	X
		NO	
4.5b	If NO, explain why only one gender is being selected. (e.g. condition under study is gender specific)		

4.6	What is the age range of the participants?	LOWER AGE LIMIT	19
		UPPER AGE LIMIT	No limitations

4.7	Participant Inclusion and Exclusion Criteria: List all inclusion/exclusion criteria and indicate with an asterisk (*) those criteria which will be included in the Letter of Information.
4.7a	Inclusion Criteria
4.7b	Exclusion Criteria and rationale for exclusion

4.8a	Are there any risks for these participants if they are also taking part in other research?	YES	
		NO	X
4.8b	If YES, explain any risks associated with participation in multiple studies		

4.9	What (if any) is the relationship between the researcher(s) and the subjects?
No relationships	

SECTION 5 PARTICIPANT RECRUITMENT

5.1	Describe the method of selecting, sampling and recruiting participants.
95 Canadian universities as listed at the Association of Universities and Colleges of Canada web site.	

5.2	Identify who will be contacting them.
Self	

5.3	Indicate where the research will be conducted.
Subject's home stay, possibly U of T campus; e-mails	

5.4	Will announcements or advertisements be used?	YES	
		NO	X
	If YES (Provide copies of all advertisements /announcements that will be used)		

SECTION 6 RESEARCH PROCEDURES

6.1	Indicate which of the following interventions, testing or procedures are to be performed on the human participants as part of this research study. (Check as many as needed)		
Interview/survey/questionnaire	X	Evaluation of program or services	
Experiment		Non-invasive physical measurements (e.g. BP, temperature)	
Observation of public behaviour			
Observation of laboratory behaviour		Collection of biological materials	
Observation of classroom behaviour		Retrospective chart or file review	
Analysis of existing data	X	Other (specify)	
Audio recording	X		
Video recording			

SECTION 7 INSTRUMENTS TO BE USED IN STUDY

Instruments (forms) = questionnaires, assessment forms, scales, interviews, surveys and diaries etc.
Please provide a full copy of all instruments with each of the copies of the protocol (i.e. four copies in all).

7.1	In the chart below list all instruments that will be used in the study. **Expand chart as required.** If you are conducting open-ended or unstructured interviews or focus groups provide an outline of the topics to be discussed. To assist the REB indicate clearly on this chart, who will be completing the form (e.g. subject – self administered, subject-interviewed, caregiver, teacher etc.)	
INSTRUMENT	Who will be completing the form?	STATUS Standard New Adapted
Interviews	Subject-self	x
On-line research	Self-administrated	x

Questionnaire to Registrars (if need be)	Subject-self	x

SECTION 8 DECEPTION OR PARTIAL DISCLOSURE TO BE USED IN THE STUDY

8.1a	This section refers to instances of deliberate deception or the withholding of key information that may influence a participant's performance or responses. Do any of the procedures in this study include the use of this type of deception or partial disclosure of information to participants?	YES	
		NO	X
8.1b	If YES, provide a rationale for the planned deception or partial disclosure.		
8.1c	If YES, describe the procedures for a) debriefing the participants and b) giving them a second opportunity to consent to participate after debriefing. If debriefing and reconsent are not viable options please explain.		

SECTION 9 RISKS AND BENEFITS OF THE RESEARCH

9.1	**Risks & Discomforts:** Discuss the overall risks of the proposed research, and specify the particular risks and discomforts associated with each aspect of the protocol. Consider physical, psychological, emotional, social, economic etc. risks and stressors.
N/A	

9.2	**Benefits:** Discuss benefits to the research participants, to groups or to society at large or the population being studied. Please note that monetary compensation is not considered a benefit.
The major benefit is to recognize that early admission is socially, emotionally and intellectually beneficial for younger students. Universities should adapt procedures to admit younger students.	

SECTION 10 COMPENSATION AND COSTS

10.1a	Will the participants be compensated or reimbursed for their time and expenses?	YES	
		NO	X
10.1b	If YES, provide details. Specify the amount, what the compensation or reimbursement is for, and how payment will be determined for participants who do not complete the study.		

10.2a	Are the participants likely to incur any additional expenses or inconveniences as a result of their participation in this study?	YES	
		NO	X
10.2b	If YES, describe		

SECTION 11 PROTECTION OF HEALTH AND SAFETY OF PARTICIPANTS

11.1	Describe facilities and procedures to protect the physical and mental health, comfort and safety of the participants.
Paolo will be interview in a familiar environment with the assistance of his mother at his own home stay.	

11.2a	Will the study be likely to induce high levels of stress, fear, anxiety in some or all participants or require them to discuss painful memories of past events?	YES	
		NO	X
11.2b	If YES, please note that the proposal cannot be reviewed by the Faculty of Education REB. You must submit your ethics review to the UWO Non-Medical Research Ethics Board. If YES, explain what resources you will make available to subjects to cope with such stress.		

SECTION 12 CONFIDENTIALITY & PROTECTION OF PRIVACY

12.1	Describe the procedures to be used to ensure anonymity of participants and for preserving the confidentiality of data both during the research and in the release of the findings. This would include procedures such as removing identifiable information, collecting anonymous data and ensuring that highly visible subjects in small communities or groups will be protected from inadvertent identification. Describe any condition in which confidentiality or anonymity cannot be guaranteed or must be breached.
Use of pseudonyms, coding of the collected information and data	

12..2a	Is identifiable participant **data** being sent off-site to a sponsor, co-investigator or central data collection site or registry? NO	
12..2b	If YES, indicate which, if any, of these participant identifiers will be included with the data?	Surname Name &/or Initials
		Personal Numbers: e.g. SIN, employee or student number,
		Institutional / Hospital Chart or Record #
12..2c	If any of the above identifiers will be included, provide a rationale why it is necessary to include this information and why a unique, de-identified code cannot be used instead.	
N/A		

12.3	Describe the procedures for securing and storing written records, videotapes, computer discs, recordings and questionnaires etc. Indicate if the material will be retained indefinitely or the length of time the material will be retained and describe the method of disposal if it is to be destroyed.
All collected data will be destroyed once the study is completed. Recordings will be erased, or returned to Paolo. Other paper-based data will be professionally shredded.	

12.4	Identify all agencies or individuals other than the research team you know will have access to confidential data collected for this study.
N/A	

SECTION 13 INFORMED CONSENT

Disclaimer: The REB does not assess the legal validity of the consent form nor does it provide any other legal advice.

13.1	Briefly describe any plans for provision of feedback to participants.
If requested, a copy of the research data (thesis) will be revealed to the participants.	

13.2	If written consent cannot be obtained from potential participants prior to intervention or written consent is not appropriate, provide a justification. (E.g. completion of a questionnaire in a survey study is evidence of compliance.)
Potentially, much data can be collected directly from universities web sites.	

13.3a	Will minors or persons not able to consent for themselves be included in the study?	YES	
		NO	X
13.3b	If YES, describe the consent process and indicate who will be asked to consent on their behalf and discuss what safeguards will be employed to ensure the rights of the research participant are protected. *Whether or not a separate assent form is used, investigators and parents or guardians should discuss the study with the person (when appropriate) and explain exactly what will happen and what the person's rights are. In certain circumstances, the REB may find it acceptable for mature or emancipated minors to give consent without also requiring consent from parents or guardians.*		

13.4	Attach a copy of the documentation that will be used to inform and obtain consent from the potential participants about the research. Separate Information/consent documents or a combined Information/Consent document may be used. Wording regarding the participant's consent must comply with the UWO policies and procedures and participants must be given a copy of the Letter of Information or combined Information/consent document to keep for reference if they wish. *Some requests for interviews with competent persons who hold or have held positions of responsibility and who are primarily relating their experiences in public or private office (e.g. politicians, government officials, senior executives) need not follow such a structured outline. (See Section 10.0 in the NMREB Guidelines.)*
PLEASE COMPLETE THE CHECKLIST ON NEXT PAGE	

13.5	*CHECKLIST – INFORMATION & CONSENT DOCUMENTATION*			
HAVE YOU INCLUDED OR ADDRESSED THE FOLLOWING ISSUES IN YOUR LETTER OF INFORMATION AND CONSENT FORM?				
YES	Not Appl	(see Informed Consent documentation guidelines Appendix 1 NMREB Guidelines for detailed description/requirements of each category)		
X		Title of the research		
	X	Identity of researchers & sponsors		
	X	Invitation to participate in research		
X		Information/consent documents addressed to research participant		
X		Summary explanation of research		
X		Number of participants – total & local		
	X	Participant inclusion & exclusion criteria		
X		Description of the research and any experimental procedures		
X		Explained specific research techniques		
		Estimate of participant's time commitment		
X		Location of the research		
X		Described Risks / Harms / Benefits		
X		Explained voluntary participation and freedom to refuse to participate/ withdraw at any time.		
	X	Participation in concurrent or future studies		
X		Anonymity		
X		Confidentiality		
	X	Alternative options to participating in the research if appropriate		
	X	Told they may keep the Letter of Information		
X		Contact person(s) for participants a) regarding the study & b) subject Rights		
	X	Compensation & Costs to Subjects		
	X	No waiver of rights		
	X	No indication of institutional or REB approval		
	X	Publication of results		
	X	Conflict of Interest declared		
X		Measures taken to deal with stress, anxiety, or fear induced by study, if Any		
	X	Language Level - lay language, grade 8 level		
	X	Formatting – pages numbered, type size, page layout, header/footer, Headings		
	X	Consent Statement as per UWO standard or written consent not Required		
	X	Signatures – participant, person obtaining consent		
	X	Assent form for children 7+ (Optional)		what the study is about
				why the child is eligible to participate for the study
				procedures, what will happen
				voluntary participation, withdrawal
				risks, discomforts
				Benefits
				Contacts
				an invitation to ask questions
				Signature

SECTION 14 CROSS-CULTURAL RESEARCH

INCLUDE THIS SECTION ONLY IF THIS ETHICS SUBMISSION DEALS WITH CROSS-CULTURAL RESEARCH.

Submissions dealing with aboriginal peoples, isolated or non-traditional communities, or work in other countries must include this section.

If the research is cross-cultural, special consideration will be given when reviewing the ethical standards to ensure that the work is carried out in an ethically sound manner yet within the norms of the community.

14.2a	Indicate which of the following special considerations should be acknowled ged when reviewing the ethical standards of your research.
Barriers to or other unusual considerations about obtaining access to subjects.	
Reduced ability to obtain informed consent.	
Reduced ability to ensure privacy.	
Different cultural views of the kinds of activities and information to which privacy concerns apply.	
Acquisition and use of cultural property, both tangible and intellectual.	

14.2b	Address how the work will be dealt with and what approvals have been or will be sought from the community.
The questions are listed in the appendix.	

Appendix B: Ethics Approval

Western Education

WESTERN UNIVERSITY
FACULTY OF EDUCATION
USE OF HUMAN SUBJECTS - ETHICS APPROVAL NOTICE

Review Number:	
Principal Investigator:	
Student Name:	
Title:	
Expiry Date:	
Type:	M. Ed. Thesis
Ethics Approval Date:	December 10, 2012
Revision #:	1
Documents Reviewed & Approved:	Revised Study End Date

This is to notify you that the Faculty of Education Sub-Research Ethics Board (REB), which operates under the authority of The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects, according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario has granted approval to the above named research study on the date noted above. The approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the REB's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the study or information/consent documents may be initiated without prior written approval from the REB, except for minor administrative aspects. Participants must receive a copy of the signed information/consent documentation. Investigators must promptly report to the Chair of the Faculty Sub-REB any adverse or unexpected experiences or events that are both serious and unexpected, and any new information which may adversely affect the safety of the subjects or the conduct of the study. In the event that any changes require a change in the information/consent documentation and/or recruitment advertisement, newly revised documents must be submitted to the Sub-REB for approval.

13 Faculty of Education Sub-Research Ethics Board
Faculty of Education (Chair)
Faculty of Education
Faculty of Education
Faculty of Education
Faculty of Education
Faculty of Education
Faculty of Education
Faculty of Music
Faculty of Education
Faculty of Education
Faculty of Education, Associate Dean, Research *(ex officio)*
Faculty of Education, Western Non-Medical Research Ethics Bo ard *(ex officio)*
Faculty of Music, Western Non-Medical Research Ethics B oard *(ex officio)*
Faculty of Music, Western Non-Medical Research Ethics B oard *(ex officio)*

The Faculty of Education
1137 Western Rd.
London, ON N6G 1G7

Copy: Office of Research Ethics

Appendix C: Research Questionnaire – The Office of Registrar (English)

Research Focus 1: Has the university developed early entrance/admission procedures or policies?

- If not, does the university intend to develop such policies in the future? If so, when?
- Who, within the university, has the authority to accept gifted and talented students 2-4 years prior to the usual admission age?

Research Focus 2: In the case of such early entrance policies, what factors, and documents (academic, and non- academic records) are considered during the decision-making process (e.g., scores, grades, interviews, recommendations, extracurricular involvement)?

- During the early admission process of gifted and talented students, are there any special requirements and criteria that students must meet in order to be accepted? If so, what are they?
- What, if any, academic and non-academic records are required when considering an application from a gifted and/or talented student?
- How many gifted and/or talented students were accepted as a result of early entrance/admission policies to various university programs in the current academic year?

Research Focus 3: Is early admission to a program regulated at the faculty level?

- If a faculty receives an application form from a 15 or 16-year-old gifted and talented student, what steps are taken to consider such an applicant? Is a separate policy used to evaluate and assess gifted and talented applicants? If a separate policy exists, what variables are included?
- Who makes the final admission decision, the Faculty, or the Office of Registrar?

Research Focus 4: Do gifted and talented students receive any special accommodations and treatment during the first year of their undergraduate studies and/or are they offered specially altered and designed transitional programs?

- If a gifted and talented student is accepted two to four years earlier than the usual admission age, do you offer any special accommodations, modifications and/or transitional programs to meet such students' needs and exceptionalities? If so, what are they?
- If not, does the faculty think such programs should be developed and implemented to satisfy students' exceptional needs?

Appendix D: Research Questionnaire – The Office of Registrar (French)

Champ de recherche n° 1 :
Est-ce que l'université a développé une politique ou des procédures d'admission précoce?

- Est-ce que l'université a développé une politique d´admission précoce pour des étudiants surdoués?
- Si non, est-ce que l'université a l'intention de développer une telle politique à l'avenir? Si oui, quand?
- Au sein de l'université, qui est responsable d'inscrire les étudiants surdoués (ayant deux à quatre ans de moins que l'âge d'inscription habituelle)?

Champ de recherche n° 2 :
Si une politique d'admission précoce existe pour les étudiants surdoués, quels sont les facteurs, documents (académiques et non académiques) qui sont pris en considération durant le processus de prise de décision (par ex. notes, entrevues, recommandations, engagement extra-muros)?

- Durant le processus d'admission d´étudiants surdoués, y a-t-il des exigences ou critères spécifiques que doivent satisfaire ces derniers en vue de leur acceptation? Si oui, lesquels?
- Quels sont les dossiers, académiques ou non académiques, requis lors de la prise en considération d´une demande d'admission de la part d´un étudiant surdoué?
- Pour l´année en cours, combien d'étudiants surdoués ont été admis aux divers programmes universitaires, dans le cadre de la politique d'inscription précoce?

Champ de recherche n° 3 :
Est-ce que la faculté joue un rôle de réglementation dans l'admission précoce des étudiants à un programme?

- Si la faculté reçoit une demande d'inscription d'un étudiant surdoué (âgé de 15 à 16 ans), quelles sont les étapes qui sont suivies pour la prise en considération d´une telle demande? Est-ce qu´on utilise une procédure distincte pour l´évaluation des demandes d´étudiants surdoués? Si cette politique existe, quels sont les paramètres qui sont pris en compte?
- Qui prend la décision ultime d'admission, la faculté ou le bureau du registraire?

Champ de recherche n° 4 :
Est-ce qu´il y a des modalités d´accueil spéciales pour les étudiants hautement surdoués durant la première année de leurs études du premier cycle, ou est-ce qu´on leur propose des programmes de transition spécialement conçus et modifiés?

- Si un étudiant surdoué est admis deux à quatre ans avant l'âge d'inscription habituelle, est-ce que vous lui proposez des conditions spéciales, des modifications ou des programmes de transition pour répondre à ses besoins exceptionnels? Si oui, quels sont-ils?
- Si non, est-ce que la faculté est d´avis que de tels programmes devraient être développés et mis en œuvre pour répondre aux besoins d´étudiants surdoués?

Appendix E: Research Questionnaire – The Office of Registrar UofT

(Exactly as Appendix C plus additional Research Focus 5):

Research Focus 5: How did Paolo meet the criteria of early admission?

- Did Paolo submit the standard application form? Was it sufficient to make an offer of acceptance? Was an offer of acceptance made on the basis of a standard application policy only?
- What elements in the application were considered as critical in the offer-making process?
- Was Paolo's age considered as an advantage, disadvantage, or not considered at all?

Appendix F: Research Questionnaire – The Main Participant

Research Focus 1:
How does (main participant) fit the description of a gifted and talented individual?

- If you remember, how old were you when he started reading / writing? Did you invent any words or concepts?
- As a child, did you ask many complex and insightful questions, if applicable?
- What personality characteristics did you demonstrate as a child? Locus of control? Competition? Perfectionism? Detail-orientation? Symbolism? Creativity? Self-discipline? Maturity and independence?
- What were your favourite games (simple or complicated) and role-playing activities?
- How did you interact with his your peers? Did you attend kindergarten? Preschool? Did he/you enjoy it? What did you enjoy the most? The least?
- What relationships did you develop? Any friendships? Imaginary friends?
- Did you demonstrate sensitivity to the environment? Oversensitivity?
- Did you like schoolwork? Too easy? Too slow?
- Your favourite subjects? Any extracurricular interests? Any hobbies?

Research Focus 2:
What exact factors were considered during participant's early admission to the University of Toronto?

- Did you apply using a standard admission procedure? Any modifications?
- Did you have to submit any additional, non-standard documentation? Samples? Artefacts? IQ score? Interview?
- If interviewed, to what questions did you have to respond?

Research Focus 4:
Was this decision beneficial for both participant and the university?

- After your first year at university, were you satisfied with your academic decision?
- Were any special modifications initially offered to you? If so, which ones? If not, would you perform even better if such were offered to you?
- Were all of your professors informed of your younger age?

Research Focus 5:
What social, academic and emotional regrets, doubts and drawbacks did participant experience while at university?

- What disadvantages and drawbacks did you experience during your first year?
- Did you manage to develop any friendships?
- Did you actively participate in any extracurricular activities, events, clubs, camps, etc.?
- Were your peers aware of your age? How did it impact your peer relationships?
- If you had to reapply, would you do it? Why? Why not?
- If you were a committee member, would you change anything in the application process? If so, what would it be?
- Were you interested in any extracurricular activities, clubs and/or student associations? What were they?

Appendix G: Research Questionnaire – Participant's Peers

1. Did you initially know that (participant) was 2 years younger than you? How did you find out? Did it change anything? How did you react?

2. What did you think about (participant)? Was he helpful, sociable, supportive, and engaged in a group work? Or, was he more frequently seen as reticent, shy, isolated?

3. Did you value the fact that you met (participant)? If so, why? If not, why were you indifferent?

Appendix H: Research Questionnaire - Participant's Professors

1. How did you perceive Paolo as your student initially? What kind of student was he? Did your perception change over time? If so, how?

2. How did you assess and evaluate Paolo's performance?

3. Were you aware of Paolo's age? If so, did it affect your expectations? If not, would it be possible for you to modify and/or adapt your expectations in regards to the age of your students?

4. What strengths and weakness did you recognize in Paolo's performance?

5. Did you believe that Paolo was emotionally and socially mature enough to commence his academic career?

6. Was his performance exceptional, average, below average? If below, what did you think was the cause of his below average performance?

Appendix I: Research Questionnaire – Participant's Mother

Research Focus 1:
How does Paolo fit the description of a gifted and talented individual?

- Is there a family history of giftedness? Diagnosed or suspected?
- How old was he when he started reading / writing? Did he invent any words or concepts?
- As a child, did he ask many complex and insightful questions?
- What personality characteristics did he demonstrate as a child? Locus of control? Competition? Perfectionism? Detail-orientation? Symbolism? Creativity? Self-discipline? Maturity and independence?
- What were his favourite games (simple or complicated) and role-playing activities?
- How did he interact with his your peers? Did he attend kindergarten? Preschool? Did you enjoy it? What did you enjoy the most? The least?
- What relationships did he develop? Any friendships? Imaginary friends?
- Did he demonstrate sensitivity to the environment? Oversensitivity?
- Did he like schoolwork? Too easy? Too slow?
- His favourite subjects? Any extracurricular interests? Any

Appendix J: Letter of Consent – The Office of Registrar (English)

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

CONSENT FORM

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Name (please print):

Signature: Date:

Name of Person Obtaining Informed Consent:

Signature of Person Obtaining Informed Consent:

Date:

Appendix K: Letter of Consent – The Office of Registrar (French)

LA POLITIQUE D'INSCRIPTION PRÉCOCE DES ÉTUDIANTS SURDOUÉS AUX UNIVERSITÉS CANADIENNES

FORMULAIRE DE CONSENTEMENT

J'ai lu la lettre d'information, on m´a expliqué la nature de l'étude et j´accepte d´y participer. On a répondu à toutes mes questions de manière satisfaisante.

Nom (Veuillez écrire en lettres moulées) : _____

Signature : Date :

Nom de la personne obtenant le consentement éclairé :

Signature de la personne obtenant le consentement éclairé :

Date :

Appendix L: Letter of Consent – Main Participant

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES
FOR GIFTED AND TALENTED STUDENTS

CONSENT FORM

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

I agree that the researcher may interview (initial those that you agree to):

_____ My mother
_____ My professors
_____ My university peers

Name (please print):

Signature: Date:

Name of Person Obtaining Informed Consent:

Signature of Person Obtaining Informed Consent:

Date:

Appendix M: Letter of Consent – Participant's Peers

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

CONSENT FORM

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Name (please print):

Signature: Date:

Name of Person Obtaining Informed Consent:

Signature of Person Obtaining Informed Consent:

Date

Appendix N: Letter of Consent – Participant's Professors

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

CONSENT FORM

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Name (please print):

Signature: Date:

Name of Person Obtaining Informed Consent:

Signature of Person Obtaining Informed Consent:

Date:

Appendix O: Letter of Consent – Participant's Mother

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES
FOR GIFTED AND TALENTED STUDENTS

CONSENT FORM

I have read the letter of information, have had the nature of the study explained to me and I agree that my child may participate in the study. All questions have been answered to my satisfaction.

_____
Printed Name

_____ _____
Signature Date

Name of Person Obtaining Informed Consent:

Signature of Person Obtaining Informed Consent:

Date:

Appendix P: Letter of Information – Main Participant

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

LETTER OF INFORMATION - Main Participant

Introduction
My name is …… and I am a graduate student of Master of Education degree program at the Faculty of Education at The University of Western Ontario. I am currently conducting research on early university policies for gifted and talented students and would like to invite you to participate in this study.

Purpose of the study
The aims of this study are to investigate and learn about early university admission policies and procedures for younger than a regular age students. Another aim is to research one case study in which you will be the subject.

If you agree to participate
If you agree to participate in this study, you will be asked to take part in an interview regarding your academic and social experiences, academic comments, and impressions. The interview is scheduled for approximately 50 minutes and will be conducted at your most convenient place and time. To maintain the scheduled time, interviews will be audio-recorded and transcribed. I am also asking for your consent to interview your mother, your professors and your university peers about your academic and social experiences.

Confidentiality
The information collected will be used for research purposes only, and neither your name nor information which could identify you will be used in any publication or presentation of the study results. All information collected for the study will be kept confidential. Collected data in paper format or stored on USBs, or other portable devices will be stored in a locked cabinet of my home locked office. The data will be retained until I have completed my thesis. After that, all the data will be deleted, destroyed.

Risks & Benefits
It is possible that some of the people I interview about you may say things that are unflattering or non-complimentary and this may be reported in publications and presentations of the research. If this will be a problem for you, you should not agree that I may interview others about you.

Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time.

Questions
If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, The University of Western Ontario at …….. or ..... If you have any questions about this study, please contact my supervisor ……
This letter is yours to keep for future reference.

Appendix Q: Letter of Information – Participant's Peers

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

LETTER OF INFORMATION – Participant's Peers

Introduction
My name is …… and I am a graduate student of Master of Education degree program at the Faculty of Education at The University of Western Ontario. I am currently conducting research on early university policies for gifted and talented students and would like to invite you to participate in this study.

Purpose of the study
The aims of this study are to investigate and learn about early university admission policies and procedures for younger than a regular age students. Another aim is to research one case study of a gifted student who at the age of 16 was accepted to a regular university program.

If you agree to participate
If you agree to participate in this study, you will be asked to take part in an interview regarding your experiences with a particular gifted student who has agreed that we may talk to you and provide your academic comments, impressions and experiences of your fellow student. The interview is scheduled for approximately 50 minutes and will be conducted at your most convenient place and time. To maintain the scheduled time, interviews will be audio-recorded and transcribed.

Confidentiality
The information collected will be used for research purposes only, and neither your name nor information which could identify you will be used in any publication or presentation of the study results. All information collected for the study will be kept confidential. Collected data in paper format or stored on USBs, or other portable devices will be stored in a locked cabinet of my home locked office. The data will be retained until I have completed my thesis. After that, all the data will be deleted, destroyed.

Risks & Benefits
There are no known risks to your participation in this study.

Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your academic status.

Questions
If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, The University of Western Ontario at …… or..... If you have any questions about this study, please contact my supervisor …….
This letter is yours to keep for future reference.

Appendix R: Letter of Information – Participant's Professors

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

LETTER OF INFORMATION – Participant's Professors

Introduction
My name is …… and I am a graduate student of Master of Education degree program at the Faculty of Education at the University of Western Ontario. I am currently conducting research on early university admission policies for gifted and talented students, and would like to invite you to participate in this study.

Purpose of the study
The aims of this study are to investigate and learn about early university admission policies and procedures for younger than the regular age students. Another aim is to research one single-subject case study of a gifted student ……. who at the age of 16 was accepted to the Program in History at the University of Toronto, and was one of your students.

If you agree to participate
If you agree to participate in this study, you will be asked to take part in an interview regarding your experiences with a particular gifted student who has agreed that we may talk to you and provide your academic comments, impressions and experiences of teaching this student. The interview may be scheduled for approximately 50 minutes and will be conducted at your most convenient place and time (e.g. your office). To maintain the scheduled time, interviews will be audio-recorded and transcribed. It is also possible to provide your answers in the attached questionnaire whatever you find more convenient.

Confidentiality
The information collected will be used for research purposes only, and neither your name nor information which could identify you will be used in any publication or presentation of the study results. All information collected for the study will be kept confidential. Collected data in paper format or stored on USBs, or other portable devices will be stored in a locked cabinet of my home locked office. The data will be retained until I have completed my thesis. After that, all the data will be deleted, destroyed.

Risks & Benefits
There are no known risks to your participation in this study.

Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time.

Questions
If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, The University of Western Ontario at …… or ..... If you have any questions about this study, please contact my supervisor ……
This letter is yours to keep for future reference.

Your positive response, interest and concern are highly appreciated.

Sincerely yours,

Appendix S: Letter of Information – Participant's Mother

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

LETTER OF INFORMATION – Participant's Mother

Introduction
My name is …….. and I am a graduate student of Master of Education degree program at the Faculty of Education at The University of Western Ontario. I am currently conducting research in early university policies for gifted and talented students and would like to invite you to participate in this study.

Purpose of the study
The aims of this study are to investigate and learn about early university admission policies and procedures for younger than a regular age students. Another aim is to research one case study – your son, a gifted student who at the age of 16 was accepted to a regular university program.

If you agree to participate
If you agree to participate in this study, you will be asked to take part in an interview regarding your experiences with a son who has agreed that we may talk to you and provide your comments, impressions and experiences. Your son has agreed that we may interview you. The interview is scheduled for approximately 50 minutes and will be conducted at your most convenient place and time. To maintain the scheduled time, interviews will be audio-recorded and transcribed. It is possible that some of the people I interview about your son may say things that are unflattering or non-complimentary.

Confidentiality
The information collected will be used for research purposes only, and neither your name nor information which could identify you will be used in any publication or presentation of the study results. All information collected for the study will be kept confidential. Collected data in paper format or stored on USBs, or other portable devices will be stored in a locked cabinet of my home locked office. The data will be retained until I have completed my thesis. After that, all the data will be deleted, destroyed.

Risks & Benefits
There are no known risks to your participation in this study.

Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time.

Questions
If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, The University of Western Ontario at…….. If you have any questions about this study, please contact my supervisor ……
This letter is yours to keep for future reference.

Appendix T: Letter of Information – the Office of Registrar (English)

CANADIAN UNIVERSITY EARLY ADMISSION POLICIES FOR GIFTED AND TALENTED STUDENTS

LETTER OF INFORMATION

Introduction
My name is……., and I am a graduate student of Master of Education degree program at the Faculty of Education at The Western University in London, Ontario. I am currently conducting research on early university policies for gifted and talented students, and would like to invite you to participate in this study.

Purpose of the study
The aims of this study are to investigate and learn about early university admission policies and procedures for younger than a regular age students. Another aim is to research one case study of a gifted student who at the age of 16 was accepted to a regular university program.

If you agree to participate
If you agree to participate in this study, you will be asked to answer questions (grouped into Four Research Focuses), regarding currently existing early university admission policies and procedures for younger than a regular age students (see: enclosed list).

Confidentiality
The information collected will be used for research purposes only, and neither your name nor information which could identify you will be used in any publication or presentation of the study results. All information collected for the study will be kept confidential. Collected data in paper format or stored on USBs, or other portable devices will be stored in a locked cabinet of my home locked office. The data will be retained until I have completed my thesis. After that, all the data will be deleted, destroyed.

Risks & Benefits
There are no known risks to your participation in this study.

Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time.

Questions
If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, The Western University at…….. If you have any questions about this study, please contact my supervisor ……..

This letter is yours to keep for future reference.

Appendix U: Letter of Information – the Office of Registrar (French)

LA POLITIQUE D'INSCRIPTION PRÉCOCE DES ÉTUDIANTS SURDOUÉS AUX UNIVERSITÉS CANADIENNES

LETTRE D'INFORMATION – Bureau du registraire

Madame, Monsieur,

Je m'appelle …….et je suis un étudiant en maitrise à la Faculté d'éducation de l'Université de Western Ontario à London, en Ontario. J´effectue présentement une étude de recherche sur les politiques d'inscription précoce des étudiants surdoués, et je voudrais vous inviter à y participer.

Le but principal de cette étude est de documenter les politiques et procédures d'admission d´étudiants plus jeunes que d´habitude. L'autre objectif est de mener une étude de cas approfondie d'un élève surdoué qui, à l'âge de seize ans, a été admis à un programme de baccalauréat universitaire spécialisé.

Si vous acceptez de participer à cette étude, vous devrez répondre à une série de questions (regroupées selon quatre champs de recherche) traitant de la politique et des procédures d'inscription courantes pour des étudiants plus jeunes que d´habitude (consultez la liste jointe).

Les données recueillies seront utilisées dans le cadre de ma maitrise et peut-être publiées dans des revues académiques ou des textes de base. Toutes ces données, recueillies sur papier ou emmagasinées en format USB ou celui d´autres dispositifs mobiles, seront rangées dans un placard fermé à clé, dans mon propre bureau personnel verrouillé chez moi. Je conserverai les données jusqu'à ce que mon mémoire soit complété. Par la suite, toutes les données seront supprimées et détruites.

Il n'y a aucun risque associé à votre participation à cette étude. Votre participation est facultative. Vous pouvez refuser d´y participer, refuser de répondre aux questions, ou vous retirer à n'importe quel moment.

Pour toute question au sujet de cette étude ou de vos droits en tant que participant(e) de recherche, vous pouvez contacter le bureau du Comité d'éthique en recherche à l´université de Western (Office of Research Ethics, The Western University) au ……ou à l'adresse de courriel suivante ……..:. Si vous avez des questions concernant cette étude, veuillez communiquer avec mon directeur de mémoire……. Veuillez garder cette lettre pour référence ultérieure.

Je vous prie d'agréer, Madame, Monsieur, l'expression de mes sentiments les meilleurs.

Appendix V: Contacted Canadian Universities by Province (as per AUCC website, May 2013).

Province and (Nº of Contacted Universities)	*University Contacted*	*Comments on Admissions*
British Columbia (11)	1. Emily Carr University of Art and Design 2. Kwantlen Polytechnic University 3. Royal Roads University 4. Simon Fraser University 5. Thompson Rivers University 6. Trinity Western University 7. The University of British Columbia 8. University of Northern British Columbia 9. University of the Fraser Valley 10. University of Victoria 11. Vancouver Island University	
Alberta (8)	1. Athabasca University 2. Concordia University College of Alberta 3. MacEwan University 4. Mount Royal University 5. The King's University College 6. University of Alberta 7. University of Calgary 8. University of Lethbridge	
Saskatchewan (4)	1. Campion College 2. First Nations University of Canada 3. Luther College 4. St. Thomas More College 5. University of Regina 6. University of Saskatchewan	UofRegina UofRegina UofRegina UofSask.
Manitoba (5)	1. Brandon University 2. Canadian Mennonite University 3. St. Paul's College 4. Université de Saint-Boniface 5. University of Manitoba 6. The University of Winnipeg	 UofManitoba
Ontario (36)	1. Algoma University 2. Brescia University College 3. Brock University 4. Carleton University 5. Dominican College of Philosophy and Theology 6. Dominican University College 7. Huron University College at Western 8. King's University College at Western 9. Lakehead University 10. Laurentian University of Sudbury 11. McMaster University 12. Nipissing University 13. Ontario College of Art & Design 14. Queen's University 15. Redeemer University College 16. Ryerson University 17. Royal Military College of Canada 18. St. Jerome's University 19. Trent University 20. University of Ottawa 21. University of Sudbury 22. Saint Paul University 23. Victoria University 24. Wilfrid Laurier University 25. York University 26. University of Waterloo 27. Western University (UWO) 28. University of Windsor 29. University of Toronto 30. University of Toronto, Mississauga 31. University of Toronto, Scarborough	Western U Western U. Western U. Western U. UofToronto

	32. University of Toronto, The Faculty of Arts and Science 33. University of Trinity College 34. University of St. Michael's College 35. University of Ontario Institute of Technology 36. University of Guelph	
Quebec (19)	1. Bishop's University 2. Concordia University 3. École de Technologie Supérieure 4. École des Hautes Études Commerciales de Montréal (HEC Montréal) 5. École Nationale d'Administration Publique 6. École Polytechnique de Montréal 7. Institut National de la Recherche Scientifique 8. Mcgill University 9. TÉLUQ 10. Université de Montréal 11. Université de Sherbrooke 12. Université du Québec 13. Université du Québec à Chicoutimi 14. Université du Québec à Montréal 15. Université du Québec à Rimouski 16. Université du Québec à Trois-Rivières 17. Université du Québec en Abitibi-Témiscamingue 18. Université du Québec en Outaoais 19. Université Laval	
New Brunswick (4)	1. Mount Allison University 2. St. Thomas University 3. Université de Moncton 4. University of New Brunswick	
Nova Scotia (9)	1. Acadia University 2. Cape Breton University 3. Dalhousie University 4. Mount Saint Vincent University 5. Nova Scotia Agricultural College 6. Nova Scotia College of Art and Design 7. Saint Mary's University 8. St. Francis Xavier University 9. University of King's College 10. Université Sainte-Anne	Dalhausie U.
Prince Edward Island (1)	1. University of Prince Edward Island	
Newfoundland and Labrador (1)	1. Memorial University of Newfoundland	

Curriculum Vitae

Name:	Waldemar P. Kruszynski
Post-secondary Education and Degrees:	The Nicolaus Copernicus University Torun, Poland 1987-1991 B.A. The Nicolaus Copernicus University Torun, Poland 1991-1993 M.A. Higher School of Business Pila, Poland 2002-2004 (2 years of the undergrad studies)
Honours and Awards:	University Scholarship for Academic Excellence 1989-1990 University Scholarship for Academic Excellence 2003-2004 Grad Research Scholarship Award 2010
Related Work Experience:	Secondary School Teacher Toronto Catholic District School Board 2010-present