Exploring the values and aspirations of mothers with highly intellectual gifted children of their participation in out-of-school programs

By
Chun-Yu Cherry Huang
Bachelor of Business (Griffith)
Master of Educational Practice (Bond University)
Graduate Certificate in Educational Studies (Gifted and Talented) (UNE)

School of Education and Professional Studies
Griffith University

Supervisors Professor P. Grootenboer, Professor D. Pendergast, and Dr M. Ronksley-Pavia

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Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Name: Chun-Yu Cherry Huang
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Abstract

The unique learning needs of gifted children present parents with many challenges. Despite this, the voices of these parents have received little attention from scholars. Australian schools are not always able to appropriately provide for the learning needs of gifted children. As it appears that school programs are not adequately meeting the academic and social needs of many gifted children, parents are seeking out-of-school programs to cater for their children’s unique academic and social needs. However, the values and aspirations of these parents remain unclear.

Using bioecological and sociocultural theories as a framework, this study collected data from eight mothers of highly gifted children in Years 3-6 on their values and aspirations for their children’s attendance in out-of-school programs. The study only focuses on intellectually gifted children, one of Gagné’s (2012) six natural abilities. Data were collected through background information collection via written responses, and face-to-face interviews via Skype. Data collected for this study went through a thematic analysis process suggested by Creswell (2008), with minor adjustments, as suggested by Smith (2008).

The findings indicate that mothers are seeking opportunities for social interaction with like-minded peers in these out-of-school programs. The findings align with the core element of both bioecological and sociocultural theories, which propose social interaction as a key element for a child’s learning and development. This indicated that mothers wish to create a social environment where their highly gifted children can feel a sense of belonging. The findings also suggest that other aspirations these mothers have for their gifted children in these programs include cognitive development, physical development, and psychological enhancement.

Mothers seek advice from professionals (e.g., school counsellors) or fellow parents with gifted children when making decisions on out-of-school programs for their children. Although mothers wish to send their highly gifted children to as many appropriate out-of-
school programs as possible, there are practical considerations. Mothers consider the cost and
the experience of the facilitators for the programs. Ultimately, mothers want their highly
gifted children to have an enjoyable experience attending these out-of-school programs.
The findings confirmed existing research that mothers of gifted children seek social
interaction opportunities for their children.

Therefore, recommendations for providers of out-of-school programs are to consider
incorporating social interaction activities for gifted children, and for schools that cannot cater
for the needs of highly gifted children to be flexible and allow those children to attend other
appropriate programs during regular school days. Providers of those programs need to be
flexible with age requirements. In addition, facilitators need to attend training on gifted
children’s unique characteristics to understand how they process information. These
recommendations provide practical guidance to provide highly gifted children with the
support and opportunities most valued by their mothers.
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## Definitions

There are several acronyms used throughout this thesis. Moreover, there are terms used here that have a specific meaning in this context. These acronyms and terms are noted in this section.

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tbody>
<tr>
<td>Australian Curriculum</td>
<td>The expectations for what all young Australians should be taught, regardless of where they live in Australia or their background.</td>
</tr>
<tr>
<td>Upper primary</td>
<td>The last three years of primary school years. It generally means grades/years 4-6. For the purpose study, years 3-6 are included.</td>
</tr>
<tr>
<td>Australian MENSA</td>
<td>A not-for-profit society whose members qualify by having an IQ in the top 2% of the population.</td>
</tr>
<tr>
<td>ACARA</td>
<td>The Australian Curriculum, Assessment and Reporting Authority, an independent statutory authority that will improve the learning of all young Australians through world-class school curriculum, assessment and reporting.</td>
</tr>
<tr>
<td>QAGTC</td>
<td>Queensland Association for Gifted &amp; Talented Children Inc. It is an open association of people who share a common interest in gifted and talented children. There is no entry requirement.</td>
</tr>
<tr>
<td>Grade acceleration</td>
<td>A placement process for gifted and talented students who are advanced in all subjects compared to their chronological peers. It can occur at any stage of schooling.</td>
</tr>
<tr>
<td>Double-accelerated</td>
<td>Students who attend grade classes that are two years ahead of their original grade classes.</td>
</tr>
<tr>
<td>Twice exceptional (2E)</td>
<td>Gifted children who also have one or more disabilities as defined by federal or state eligibility criteria.</td>
</tr>
<tr>
<td>ADHD</td>
<td>Attention deficit hyperactivity disorder, a chronic problem that causes poor concentration and control or impulses.</td>
</tr>
<tr>
<td>ASD</td>
<td>Autism spectrum disorder (ASD) refers to a group of complex neurodevelopment disorders characterised by repetitive and characteristic patterns of behaviour and difficulties with social communication and interaction. The symptoms are present from early childhood and affect daily functioning.</td>
</tr>
<tr>
<td>QA Young Einstein club</td>
<td>Queensland Academies Young Einstein club is open to students in Years 3-5 who are formally assessed with IQs of 140 or above to undertake independent project-based tasks and interact with like-minded peers</td>
</tr>
<tr>
<td>STEAM</td>
<td>Science, Technology, Engineering, Arts, and Mathematics.</td>
</tr>
<tr>
<td>GATEWAYS</td>
<td>An independent, non-funded organisation that runs irregular programs for highly able and gifted children with special educational needs.</td>
</tr>
<tr>
<td>BRAINways</td>
<td>An independent, non-funded organisation that run irregular programs for gifted and talented students.</td>
</tr>
<tr>
<td>GERRIC</td>
<td>Gifted Education Research and Resource Centre, within the School of Education at UNSW, which contributes to many aspects of the education and development of highly able children.</td>
</tr>
<tr>
<td>OC class</td>
<td>Opportunity classes - located in government primary schools in New South Wales. These classes help Year 5 and 6 gifted and talented students to learn by grouping them with other gifted and talented children.</td>
</tr>
<tr>
<td>The Extension Education Programme</td>
<td>This program is a unique program designed to meet the needs of gifted children aged 5-13 years. The opportunity to spend 1 day per week to explore, learn, develop friendships and find companionship with their intellectual peers makes the one-day program and exciting and valuable part of the child’s educational and social journey.</td>
</tr>
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Chapter One: Introduction

This study seeks to explore the values and aspirations of parents, specifically mothers, who send their highly gifted upper-primary children to various out-of-school programs.

1.1 Background

Parents of gifted children often rely on schools to cater to the needs of their children; however, many feel schools could do more (Garvis, 2014). Studies have indicated that parents of gifted children express concerns that the current school system does not provide appropriate academic challenges and social interaction opportunities for highly gifted children (Coleman et al., 2015; Gross, 2000; Welsh, 2015). Henderson and Jarvis (2016) have suggested that teachers in the Australian context may not be fully equipped to identify and provide appropriate teaching for gifted children, and parents feel frustrated when schools fail to cater for the learning needs of those gifted children. In USA, similar findings were reported by Welsh (2015), who argued that parents soon realise the public-school curriculum has little flexibility and is not where all learning takes place.

Research indicates that gifted students claim that they feel bored at school, particularly when their academic learning needs are not catered for (Coleman, Micko, & Cross, 2015). After synthesising 25 years’ of studies on the lived experience of gifted and talented children within the context of schools, Coleman et al. (2015) reported that the majority of gifted students experience boredom and have to wait for their peers to catch up with content at school; however, the experiences reported were different when the gifted students attended schools that catered more specifically for their academic development.

In Australia, two Federal Senate Inquiries into gifted education in 1988 and 2001 made important recommendations but did not lead to any fundamental changes to current education systems (Kronborg & Cornejo – Araya, 2018). Around 62% of Queensland schools
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did not offer gifted programs or offer such service during lunch breaks and do not always align with school curriculum (Garvis, 2014). Given the often-limited enrichment opportunities available at schools, parents start looking outside of school (Olszewski-Kubilius, 2003).

It seems that parents have many different values and aspirations when they send their highly gifted children to out-of-school programs. However, as Jolly and Matthews (2012) synthesis of 53 journal articles published between 1983 and 2012, showed that the voice of parents with gifted children has received little attention among academic scholars. They further revealed that on average, there were only two new empirical studies conducted each year involving parents of gifted children. Chellapan and Margrain (2013) have also confirmed this gap in the research and that parents of gifted children often feel lonely, frustrated, and stressed. Renati, Bonfiglio, & Pfeiffer (2017) also claimed, “There is a dearth of research on the experience of parenting gifted children” As Jolly and Matthews (2012, p. 260) made clear, “Parents face unique challenges in raising gifted children”. Scholars have advised that there is a strong need to conduct studies with a focus on the voices of the parents of gifted children to understand their experiences (Coleman, Guo, & Dabbs, 2007; Jolly & Matthews, 2012).

Although highly gifted children differ in many regards, they typically share some common affective characteristics such as unusual emotional intensity, high self-awareness, high expectations of self and others, and high sensitivity (Clark, 2008). It is often parents who understand their gifted children best, since almost 80% of parents can identify their children’s giftedness from a very young age (Smutny, Walker, & Meckstroth, 2000). Therefore, it is important to hear the voices of parents to understand the needs of gifted children. If parents’ voices of experience are not explored, their concerns about their gifted children’s educational and learning needs cannot be addressed by policymakers, schools, or teachers.
1.2 **Rationale and Significance**

Parents of gifted children face unique challenges as a result of the characteristics of giftedness (Clark, 2008). Research on parenting gifted children covers a limited range of age groups and cultural contexts (Jolly & Matthews, 2012) and there is a strong need to explore the parental aspirations of parents with highly gifted children (Coleman et al., 2007; Jolly & Matthews, 2012; Pilarinos & Solomon, 2017). Research suggests that parents express concern that current Australian school systems cannot provide appropriate academic challenges and social interaction opportunities for highly gifted children (Gross, 2000; Thompson & King, 2015). Parents are often left to seek external help to fill the gaps in regular schooling. This study explored the various values and aspirations behind mothers’ decisions when choosing suitable out-of-school programs for their highly gifted children in the Australian context. The findings provide valuable information for stakeholders such as school leaders and policymakers to consider when developing extracurricular activities for highly gifted children.

1.3 **Research Question**

This study explored the values and aspirations behind mothers’ decisions when choosing out-of-school programs for their intellectually gifted children through their experience. To explore their values and aspirations, the following research question was adopted:

*What are the values and aspirations of mothers of highly gifted upper-primary children for their children’s participation in out-of-school programs?*

To provide further focus, four sub-questions were developed and utilised in data collection to reflect the connections between the bioecological and sociocultural theoretical frameworks, (explained in the next section), that drive the inquiry:
I. Why do mothers send their highly gifted children to out-of-school programs?

II. How do mothers choose out-of-school programs for their highly gifted children?

III. What are mothers’ perceptions of the value of out-of-school programs?

IV. How do mothers evaluate out-of-school programs?

1.4 Theoretical Framework

The theoretical framework for this qualitative study calls upon bioecological and sociocultural theories, both of which provide models of individual/human development. These theories have been utilised because they enable understanding of how surrounding environmental contexts such as society and culture help shape individuals’ development.

1.4.1 Bioecological Theory

The first theoretical lens informing this study derives from the Ecology of Human Development theory which was first proposed by Bronfenbrenner in 1979 (cited in Rosa & Tudge, 2013). Bronfenbrenner’s initial theory connecting ecology and human development was later developed into the bioecological theory, which aims to explain how human development occurs (Rosa & Tudge, 2013).

What has changed in the past few decades is the acknowledgement by a number of disciplines concerned with child and family development, such as psychology, sociology, anthropology, psychiatry and social policy, that parents and children occupy systems beyond the family system, that they need to be understood in context, and that their environment makes a difference to their health, well-being and progress. (Barnes, Katz, Korbin, & O’Brien, 2006, p. 1).

Bioecological theory conceptualised the five ecological systems with which every individual interacts. The theory indicates how individuals and their characteristics interact
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socially within and develop in the context of a microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner & Morris, 2006). Bioecological theory centres the individual, focusing on their interactions with the surrounding environment. This theory rests on the assumption that children cannot develop and grow in isolation; instead, they must be exposed to a range of contexts or environments where they interact on a continuous basis (Krishnan, 2010). This current study also focuses on individuals’ development through interactions between factors in the child’s maturing biology, the child’s immediate family or community environment, and the societal landscape that fuels and steers the child’s development. Out-of-school programs are an alternative learning environment for these children; hence, Bronfenbrenner’s bioecological theory is adapted as a theoretical framework for this study.

1.4.2 Sociocultural Theory

Sociocultural theory provides a complementary framework for this study. Vygotsky (1978) is credited with shaping sociocultural theory more than half a century ago with a discussion of how social events and interactions with parents and peers, objects, and events contribute to the development of higher order thinking. Since attending out-of-school programs is also a social event and highly gifted children have various interactions with other people, sociocultural theory is adapted as another suitable theoretical framework. Vygotsky believed everything is learned on two levels, as explained in the Mind in society: The development of higher psychological processes:

Every function in the child’s cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals. (Vygotsky, 1978, p. 57)
The sociocultural theory also puts the child at the centre and examines the relationship between the society (culture) and an individual’s development. The theory suggests that human development is a socially mediated process (Shaffer, 2005). The two main principles of this theory are the ‘more knowledge other’ and the zone of proximal development. In the learning process, the ‘more knowledgeable other’ (either a peer or adult) plays an influential role in a child’s learning. The zone of proximal development suggests the difference between two ways a child can learn and develop firstly by following an adult’s example, and secondly with guidance and encouragement from a skilled partner with more knowledge for children to develop necessary skills for future independent learning (Vygotsky, 1978). In Vygotsky’s (1978) view, interaction with peers and teachers is an effective way to develop essential skills. When mothers send their highly gifted children to out-of-school programs, they are providing an opportunity for their children to interact with peers or other adults and thus develop these skills.

Both bioecological and sociocultural theories are used in this study as frameworks to design research questions and investigate how surrounding environmental contexts help shape individuals’ development. These frameworks are then further utilised to interpret mothers’ values and aspirations when selecting out-of-school programs and their beliefs about what role these programs play in their highly gifted children’s development.

1.5 Research Design

To explore the various values and aspirations of mothers sending their highly gifted children to out-of-school programs, this study utilised a qualitative research method by employing eight individual interviews to gather data. Interviews provide the flexibility to explore any unanticipated questions when they emerge during the process and allow further discussions on unexpected topics (Marshall & Rossman, 2006). The theoretical framework guiding this research study, outlined above, is detailed in Chapter 3.
1.6 Chapter Overview

Chapter 2: Literature Review
This chapter reviews the relevant literature for this study. The three key areas are:
gifted children, parenting, and out-of-school programs.

Chapter 3: Research Method
This chapter details the research methodology used. It explains the qualitative 
research design, followed by the rationale for collecting data via interviews. Lastly, it 
explains how the theoretical frameworks guided the research design and data 
collection.

Chapter 4: Findings
This chapter presents the interpretation of the interview data. Participants’ personal 
experiences, values, and aspirations are presented here.

Chapter 5: Discussion
This chapter discusses the findings and how these address the research questions.

Chapter 6: Conclusion and Recommendations
This chapter concludes the study and provides recommendations for stakeholders such 
as parents and program providers.
Chapter Two: Literature Review

There are three key areas of informing literature for this study – gifted children, parenting, and out-of-school programs for gifted children. It is essential to first provide a definition of gifted children and to understand their unique characteristics. The role of parents with gifted children is also discussed in this chapter. Finally, it is important to examine out-of-school programs and gifted children’s experience in those programs.

2.1 Highly Gifted Children

2.1.1 Defining ‘Highly Gifted Children’

Gifted children are the least understood special needs group in Australia (Australian Association for the Education of the Gifted and Talented [AAEGT], n.d.) and both educators and the public hold many misconceptions (Commonwealth of Australia, 2001). Currently, there is no universal definition of giftedness (Australian Curriculum, Assessment and Reporting Authority [ACARA], n.d.). In Australia, the definition of giftedness and talent from Gagné’s Differentiated Model of Giftedness and Talent (DMGT) is widely referred to by government agencies and curriculum policies (ACARA, n.d.). Gagné (2012) grouped six natural abilities, intellectual, creative, social, perceptual, muscular, and motor control in the giftedness domains of the DMGT model. This study focuses only on intellectual giftedness. It is important to note that intellectual giftedness has five levels of prevalence as defined by IQ ranges (Webb, Tolan, & Meckstroth, 1991); mildly gifted (1:6-1:40, IQ 115-129), moderately gifted (1:40-1:1,000, IQ 130-144), highly gifted (1:1,000-1:10,000, IQ 145-159), exceptionally gifted (1:10,000-1:1 million, IQ 160-179), and profoundly gifted (fewer than 1:1 million, IQ 180+) (Webb, Tolan, & Meckstroth, 1991). Since the middle of the 20th century, researchers in gifted education have moved away from discussion of human intelligence, and fewer researchers now rely on IQ scores to define giftedness due to its limitations in testing all elements of humans’ natural abilities (Renzulli, 2011). However,
Warne (2016) pointed out that intelligence is still a more objective measurement than other multi-talent measurements such as creativity or social skills; he also claimed that the correlation between intelligence scores and long-term life outcomes is evident in previous research such as Hunt (2011). Defining giftedness using only IQ scores is over simplistic, but it does provide some index of the disparity between mental age and chronological age (Gross, 2004).

In terms of the distribution of general intelligence, nearly 70% of the population falls between IQ 90 and IQ 110 (Gottfreson, 2003). A child with a high IQ would be placed far to the right of the IQ range within the giftedness threshold; they can complete tasks that should generally not be possible at their age and the further they are from the normal range the more extraordinary the tasks they can perform (Gottfreson, 2003). It is important to note that a child with an IQ of 200 has a mental ability such as information processing that differs from a child with an IQ of 150, as does a child with an IQ of 150 compared to a child with an average IQ between 90-110 (Lovecky, 2011). A gifted child of IQ 190 has much higher intellectual capability than a moderately gifted child of IQ 130 (Gross, 2004). Ruf (2009) also stated that most gifted children of IQ 145+ can achieve high-school grade level equivalencies by the age of 7 or 8 years.

Ruf (2009) placed children with an IQ score above 141 in levels 4 and 5 of her five levels of giftedness. Gifted children in levels 4 and 5 need special arrangements as their differences from regular classmates are noticeable: they can read youth and adult chapter books independently by age 6 to 6½ or read six or more years beyond grade level by age 6. Exceptionally and profoundly gifted children need special education programs which are significantly different in curriculum design and structure in order to achieve their full potential (Gross, 2004). For this study, the definition of a highly gifted child is one who meets the criteria of demonstrating an IQ of 145+.
2.1.2 Highly Gifted Children in Schools

Although it is mandatory for teachers to receive training in special education in Australia, the Australian Association for the Education of the Gifted and Talented (2016) reported that there are only three universities in Australia that offer stand-alone undergraduate subjects in gifted education. In the state of Victoria, the topic of gifted education only contains one hour of material on the education of gifted children (Victoria Parliament, Education and Training Committee, 2012). Despite teachers’ willingness to attend professional development programs in gifted education, there are limited opportunities available (Fraser – Seeto, Howard, & Woodcock, 2015).

Based on the definition of highly gifted children (demonstrating IQ 145+) adopted for this study, the ratio of gifted students to non-gifted students is 1 in 1,000 (Webb, Tolan, & Meckstroth, 1991). Those highly gifted children are further away from the norm and without appropriate training, it is understandable that many primary school teachers would have little knowledge about such children, or the skills needed to provide the appropriate level and pace of instruction in class (Gross, 2000). It is also important to note that there are different levels of giftedness, even within populations of gifted children (Gagné, n.d.; Gross, 2000, 2004). Hence, when gifted children are further away from the average intelligence range, appropriate resources and experiences are increasingly required (Colangelo et al., 2004; Gross, 2004; Ruf, 2009).

In 1910 Terman commenced a longitudinal study on 1,528 intellectually gifted children and argued that those children could face academic and social difficulties in schools (cited in Jolly, 2008). Colangelo et al. (2004) pointed out that if schools do not offer appropriate academic programmes, and gifted children cannot find like-minded peers, they may start to lose interest in schooling. When highly gifted children enter school, they often
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need to wait for their peers to catch up and thus become bored; gradually, they lose interest in learning at school (Colangelo et al., 2004).

As the result, Colangelo et al. (2004) advised the American government to provide appropriate strategies to cater for those gifted students, or they would lose the spirit and natural gifts that allow them to achieve. In Australia, The Parliament of the Commonwealth of Australia (2001) also recommended that interventions for gifted students should not have to compete for resources and funding, with interventions for other students with special needs. Moreover, it recommended that the Commonwealth Government should also support the development of national curriculum materials to support a differentiated curriculum for gifted students (Parliament of the Commonwealth of Australia, 2001).

However, many studies have pointed out that regular school curricula cannot meet the learning needs of highly intelligent gifted children (Colangelo et al., 2004; Garvis, 2014; The Parliament of the Commonwealth of Australia, 2001). Although Australian policies have provided guidelines for schools to provide appropriate programs for gifted students, they still do not receive appropriate support from schools (Straker, 2010). One possible reason for this, as provided by Professor Matt Sanders, Director of the Parenting and Family Support Centre at the University of Queensland, is that gifted children are often considered ‘lucky ones’ and do not receive the necessary attention and resources to continue extending their capabilities (Straker, 2010). Atkin (2016) also argued that a lack of mandated gifted education in Australia is another possible explanation, as there are no legal consequences if schools do not implement the relevant policies.

2.1.3 Gifted Upper-Primary Students

The target group of interest for this study is parents of highly gifted upper-primary children. Worthman, Tomlinson, and Rotheram-Borus (2016) argued that early to mid-puberty is a key time when parents can substantially influence their child’s approach to
matters such as university study and potential outcomes in adult life. Gifted children at upper-primary age also start to re-evaluate their self-concept; as Fonseca (2011) stated, gifted pre-teens and teens often experience intense peer pressure to be ‘normal’. The more intelligent a child is, the further away from the general population they can feel. Owing to their unique characteristics, highly gifted children in this group are aware of their difference, start to seek peer acceptance, and can communicate their needs to their parents (Fonseca, 2011). Another reason for choosing upper-primary students for this study is that although students continue to show interest in out-of-school programs, the participation rate drops significantly during the transition from elementary to middle school (Lauver, 2004). Gifted students in middle and high school typically have significantly busier schedules and other commitments, leading to this decrease in out-of-school program attendance (Bolshakova, 2017). For this study, parents of highly gifted children between the ages of 7 and 12, the preteen years, were invited to participate.

2.1.4 Gifted Children and Peer Relationships

Studies have presented contradictory findings on the correlations between gifted children’s social problems and their giftedness (Morawska & Sanders, 2009; Olszewski-Kubilius, Subotnik, & Worrell, 2015). Gifted children often face unique social issues with their non-gifted peers, as they can feel insecure or anxious as members of a minority group in social settings (Coleman et al., 2015). Straker (2010) reported that while gifted children grow up in a context where they are cognitively different from their non-gifted peers, their relationships with their peers are also important for their overall development. Some researchers have argued that gifted children experience more social and peer problems and emotional symptoms than their non-gifted peers (Morawska & Sanders, 2009; Olszewski-Kubilius et al., 2015). In contrast, some researchers have presented findings suggesting that owing to their high cognitive abilities, gifted children can adjust their behaviour based on
their social surroundings (Chan, 2011; Lee, Olszewski-Kubilius, & Thomson, 2012).

Although there is no clear conclusion about whether gifted children face more or fewer social challenges, there is no denying that gifted children need an appropriate environment in which to excel (Coleman et al., 2015). When schools cannot provide the appropriate learning environment for gifted children, parents often seek alternatives outside school.

2.2 Parenting Gifted Children

Welsh (2015) established that parents play an important and influential role in gifted children’s further academic and social development. Parents who can provide an enriched, stimulating, and secure environment can expect their gifted children to achieve greater intellectual advancement (Welsh, 2015). After surveying 48 gifted children, 48 mothers, 33 fathers, and 36 teachers in Canada, Pilarinos and Solomon (2017) argued that the best approach for parents with gifted children is to employ a set of rules and behavioural standards to guide children’s behaviour, to communicate reasons, and to allow flexibility. High self-awareness is one of the characteristics that gifted children share, leading to these children having strong opinions of their own (Clark, 2008); therefore, open communication is vital when parenting gifted children as it allows parents and their gifted children to discuss their different opinions (Pilarinos & Solomon, 2017). Parents can use these opportunities to understand their gifted children’s ideas and facilitate a closer parent-child relationship. Close parent-child relationships can help reduce children’s stress via increased life satisfaction (Sherman, 2016). When selecting out-of-school programs for their highly gifted children to participate in, parents may talk to their gifted children to determine their preferences and interests.

2.3 The Role of Parents with Gifted Children

Like other parents, parents with highly gifted children may play an influential role in their children’s academic and social development. However, due to gifted children’s unique
characteristics and needs, parents of gifted children often need tailored parenting support (Morawska & Sanders, 2009; Ruf, 2011). Although parenting behaviour is one of the most essential aspects that influence a child’s overall development (Morris et al., 2004), not all parents are aware of how to raise a gifted child. As a result, parents rely on their own support networks to gain knowledge and to share their experiences without prejudice (Nilles, 2014; Renati et al., 2017). It is therefore important to hear the voice of parents with gifted children to understand their experience and feelings, and to gauge the assistance needed in parenting gifted children.

### 2.4 Policies

In recent years, gifted children’s learning needs have begun to receive recognition in the Australian Curriculum. ACARA (n.d) states that “gifted and talented students are entitled to rigorous, relevant and engaging learning opportunities drawn from the Australian Curriculum and aligned with their individual learning needs, strengths, interests, and goals” (para. 1). Each state in Australia has its own policies documents published between 2004-2017 to support gifted students at schools (Walsh, Jolly, Vantassel – Baska, & Coleman, 2018) Although the guidelines on curriculum modification for gifted children are clearly stated in relevant policies (ACARA, n.d.), there is an increasing realisation that schools cannot meet all the learning needs of gifted learners owing to limited resources or funding, and preservice teacher training (Commonwealth of Australia, 2001; Jolly, 2016; Walsh et al., 2018). Because the school curriculum is designed for all children, at different ability levels,
parents of gifted children do not expect schools to offer the challenges their children need (Welsh, 2015).

2.5 Out-of-School Programs

2.5.1 Benefits of Out-of-School Programs

Parents of highly gifted children also rely on non-profit gifted associations such as Australian Mensa to provide the necessary support. In a survey of 111 parents of child members of Australian Mensa, over 70% of participants expressed the strong desire for Australian Mensa to provide more events for their children to attend, as schools are inflexible in providing such events and resources (Thompson & King, 2015). All child members at Australian Mensa have been tested and have an IQ score in the top 2% of the population (Thompson & King, 2015).

To supplement their gifted children’s educational needs, parents of highly gifted children typically seek external help via avenues such as out-of-school programs (Renati et al., 2017). Bolshakova (2017) claimed that out-of-school gifted programs aim to create a relaxed and nurturing environment that offer alternative learning opportunities; these programs also provide school-like activities such as mathematics extension challenges that aim to reach academic benchmarks.

Out-of-school programs that target gifted children are often well regarded by participating students and their parents for their academic challenges and opportunities for social interaction with like-minded peers (Bicknell, 2014; Burns, Henry, McCarthy, & Tripp, 2017). In general, after-school programs such as Mathematics Enrichment or out-of-school programs such as Saturday STEAM aim to create a relaxed and nurturing environment that offer alternatives to regular schooling. In the United States, Olszewski-Kunilius and Lee (2004) argued that parents expect such out-of-school or enrichment programs to not only increase students’ interest and motivation in academic study but to also improve their social
confident. Fourteen years later, studies continue to confirm the social benefits of out-of-school programs for gifted children. In addition to programs that aim to motivate and promote academic study, Lutostanski (2018) suggested that some sporting activities such as swimming, chess, or fencing suit gifted children based on their physical, social, and emotional characteristics. For this study, out-of-school programs include all academic and non-academic out-of-school programs, such as intensive music, psychology or sporting activities, and programs are not limited to those catering for gifted students only.

2.5.2 Values of Out-of-School Programs

Children who participate in out-of-school gifted programs gain better learning skills and are more engaged if staff working at the programs are caring and competent (Greene, Lee, Constance, & Hynes, 2013). After following up with more than 5,000 past students who qualified for the Study of Exceptional Talent at the Johns Hopkins Centre for Talented Youth, findings have concluded that out-of-school programs should allow gifted students to utilise their learning during after-school hours and provide unique learning experiences that a regular school curriculum may not provide (Olszewski-Kubilius, 2010).

In identifying and supporting productive STEM (science, technology, engineering, and mathematics) programs in out-of-school settings, the National Research Council (2015) indicated that it is essential to provide a supportive social environment that will inspire young people to participate. Attributes for supportive out-of-school programs should include physical and psychological safety, opportunities for belonging, meaningful involvement, appropriate structure, opportunities for skill building, integration of family, school and community efforts, supportive relationships, and positive social norms (National Research Council, 2015).

Gifted children, like their non-gifted peers, seek close friendships (Gross, 2002). Out-of-school programs also provide opportunities for gifted children to meet other gifted peers.
In a more recent research study, Gallagher (2015) studied 54 gifted children with IQs of over 150 mixed within the general population; when those gifted children were asked to identify their good friends, they chose other gifted children rather than non-gifted peers. This finding provides evidence that when opportunities are available, gifted children develop more profound and close friendships with their like-minded peers (Gallagher, 2015).

2.5.3 Gifted Children in Out-of-School Programs

After working with hundreds of families with gifted children, Haydon (2016, p. 16) claimed that “parents are the experts on their own children, especially when it comes to giftedness”. (p.16). Therefore, one can assume that parents are important in choosing the out-of-school programs. When selecting appropriate out-of-school programs for their gifted children, Olszewski-Kubilius and Lee (2004) reported that parents of gifted children expect the out-of-school programs to provide learning and social interaction opportunities that regular schools cannot offer. Many studies on gifted academic programs outside school have revealed that programs are praised for their academically challenging nature and opportunities for social interaction with like-minded peers (Bicknell, 2014; Burns et al., 2017). The value of such out-of-school programs is evident in research, and parents trust the programs to provide intangible benefits and value in addition to the school curriculum (Burns et al., 2017). Participation in suitable out-of-school gifted programs is seen as important to supplement the standard school curriculum and provide additional academic or non-academic value (Olszewski-Kubilius, 2010; Olszewski-Kubilius & Lee, 2004). However, it is not known what parents’ values and aspirations are for their children’s participation in gifted out-of-school programs. To address this gap, this study will explore their aspirations and opinions concerning their children’s participation.
2.5.4 Gifted Children’s Experiences in Out-of-School Gifted Programs

After interviewing 14 gifted students who participated in advanced academic after-school programs and their parents, Lee, Olszewski-Kubilius, and Peternel (2009) reported that students built stronger motivation and commitment to study, higher expectations for themselves, and a stronger sense about their gifted identity. Findings were similar to surveys with students who participated in summer programs hosted by two different American universities; students expressed their enhanced open-mindedness, tolerance, and confidence in participating in academic challenges away from their family environment (Lee, Olszewski-Kubilius, Makel, & Putallaz, 2015). The positive benefit for gifted children was also evident in the two closely related studies in 2014 with a total 121 high ability students by Jen, Gentry, and Moon (2017) on their perspectives on a diverse and university-based summer program. Students from who have attended this program have reported that there is both short and long-term benefit from their participation in the program, including stronger confidence and become more open-minded (Jen, Gentry, & Moon, 2017).

Gifted students who participated in out-of-school programs also shared their positive perception of their abilities to maintain peer relationships and interpersonal competence including their relationship with same-age nongifted peers (Lee, et al., 2012). When out-of-school programs match their interests, students often feel happy and positive about their experiences in the program (Conrad, Polly, Binns, & Algozzine, 2018). This demonstrates positive experiences result from participating in out-of-school programs that match students’ abilities and interests.

2.5.5 Parental Decisions Regarding Out-of-School Gifted Programs

As various out-of-school gifted programs serve different purposes, Eddles-Hirsch, Vialle, Rogers, and McCormic (2010) pointed out that suitable programs can provide a positive social context, influence gifted students’ enjoyment of school, improve their
motivation levels, increase their willingness to learn, and reduce their stress levels. Those findings mirror the findings from Olszewski-Kubilius and Lee (2004), who conducted a study of 187 parents of children who attended Saturday academic enrichment programs at Northwestern University and reported that the parents expected out-of-school programs to increase gifted students’ interests and motivation in their academic study, as well as increasing their social self-concept and competence. When sending their gifted children to such enrichment programs, parents perceived benefits in academic growth and development as well as opportunities for contact with academic peers (Olszewski-Kubilius & Lee, 2004).

Based on their findings, Olszewski-Kubilius and Lee (2004, p. 163) created the “Model of influence and effect of participation in special programs” (see Figure 2.1). The model proposes that parents perceived both academic and social/affective effects from those special programs (Olszewski-Kubilius & Lee, 2004).
Figure 2.1. Model of influence and effect of participation in special programs (Olszewski-Kubilius & Lee, 2004, p. 163).

Olszewski-Kubilius and Lee’s 2004 study was quantitative and based in America. Although it was conducted more than fifteen years ago, it provides some insights into parents’ perceptions of out-of-school programs. This current study is not a duplication of the Olszewski-Kubilius and Lee study, as it adopts a different research method and concerns an Australian context. However, it will be valuable to observe similarities and differences in the findings between these two studies.
2.6 Summary and Conclusion

Over the years, researchers and experts have established that gifted children often lack appropriate differentiation at regular schools (Colangelo et al., 2004; Gross, 2000). In Australia, this is likely due to insufficient training in teachers’ pre-service preparation (Channing, 2017), although the Australian government has recognised the needs of gifted children and set clear guidelines for schools to follow (ACARA, n.d., para. 1). However, reports suggest gifted children are still neglected in Australian schools (Channing, 2017; Straker, 2010). Welsh (2015) interviewed 12 parents with gifted children and concluded that although parents acknowledged the important role school plays in raising good children, they do not expect schools to provide appropriate provisions for the needs of these children; rather, they are left to seek necessary provisions outside school. In Australia, insufficient funding and the absence of federal authority present barriers for gifted education in Australia (Walsh et al., 2018).

Like other parents, parents with gifted children may play a vital role in their children’s development; however, gifted children need tailored support from their parents due to their unique characteristics and needs (Morawska & Sanders, 2009; Ruf, 2011). Parents of gifted children often encourage more positive behaviour change and motivation for learning when they are actively involved in both school-based and home-based activities (Emerson et al., 2012; Georgis, Gokiert, Ford, & Ali, 2014; Henderson & Mapp, 2002). To help gifted children achieve further academic or social development, parents are advised to provide individualised activities and experiences, and out-of-school programs can offer choices that regular school curricula cannot offer (Olszewski-Kubilius, 2010; Snowden & Christian, 1999).

Some common characteristics shared by gifted children could make them a minority group in social settings, which means they often face unique social challenges around their
non-gifted peers (Coleman et al., 2015; Ruf, 2009). The further a gifted child is from the normal IQ population, the more aware they are of their differences (Fonseca, 2011). This awareness could mean gifted children face increased social challenges compared to their non-gifted peers (Morawska & Sanders, 2009; Olszewski-Kubilius et al., 2015), but may also mean gifted children are able to exercise their intelligence and adjust their behaviour to fit in (Chan, 2011; Lee et al., 2012). Regardless of their level of social adjustment, there is no denying that gifted children need specific environments where they can excel (Coleman et al., 2015).
Chapter Three: Research Theory and Methodology

The adoption of a qualitative research method facilitates the exploratory nature of this study. The use of interviews allows participants to openly discuss their values and experiences. This qualitative research methodology is reflected in the theoretical frameworks, research questions, and the methods employed for analysis.

This chapter explains the qualitative research design, followed by the rationale for choosing interview as data collection method. This is then followed by a discussion of the theoretical frameworks and how these guided the development of data collection. The participant selection process and background information on the selected participants is then provided. The data collection process is presented along with an explanation of the analysis process adopted. Concluding comments are then presented.

3.1 Research Method

3.1.1 Qualitative Research Design

This study employed qualitative research to explore the values and aspirations of mothers when sending their highly gifted upper-primary children to out-of-school programs. It adopted individual interviews as the data collection instrument to allow participants to express their values, attitudes, and feelings with greater depth (Marshall & Rossman, 2006). The use of one-on-one interviews also allows the researcher to gain a better understanding and identify the perspectives of each participant, as different questions can be used to obtain additional information when more clarification is needed (Chenail, 2011; Creswell, 2008). Since this study aimed to explore the various aspirations of mothers with highly gifted children, data collected from individual interviews provide a deep understanding of the phenomenon and allow parents to express their thoughts, feelings, and personal values (Graneheim & Lundman, 2004; Owen, 2014).
Semi-structured interviews were used for this study. Semi-structured interviews use open-ended questions with an aim to both address the theoretical framework and to allow interviewees to share their own interpretations of the research topic (Cohen, Manion, & Morrison, 2011). Themes for semi-structured interview questions are often generated around the research questions and the literature review. With purposely formulated questions, participants can be stimulated to convey their rich experiences without significant intervention by the interviewer (Palaiologou, Needham, & Male, 2016).

3.1.2 Interview Process and Protocols

The interview process followed the steps and protocols suggested by Creswell (2008). Skype was used to connect with participants in their home environment due to the geographical spread of participants across Australia. Prior to the interviews, adult consent forms (see Appendix B) were provided for participants to sign, with information on the purpose of the study and how data was to be used. During the interview, all questions and responses were recorded. For qualitative research, it is ideal for the interviewer to have an interview protocol form that acts as a reminder during the interview (Creswell, 2008). Thus, an interview protocol form with essential information such as the flow of the interview process and key interview questions was used (see Appendix A). Participants were reassured that their identities would be kept confidential.

3.1.3 Application of the Theoretical Frameworks

As introduced in Chapters 1 and 2, Bronfenbrenner’s bioecological theory and Vygotsky’s sociocultural theory were adopted as guiding theoretical frameworks throughout the data collection and analysis process. Bronfenbrenner’s view of human development, that it is the outcome of continuity and change in the characteristics of individuals and their interactions with the society (Rosa & Tudge, 2013), along with Vygotsky’s view that social
Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children

3.1.3.1 Bioecological Theory

Bronfenbrenner’s bioecological theory discusses how child development is influenced by interacting with environmental systems surrounding the individual. With the individual in the centre, the layers of different systems influence not only one another but also work together to influence the development of the individual (Greenberg, 2014). The five systems are microsystem, mesosystem, exosystem, macrosystem, and chronosystem. The microsystem concerns the immediate relationships of the individual, such as with teachers, families, and friends. Elements from the microsystem then interact with each other in the mesosystem. The exosystem consists of indirect elements in the external environment, such as the education system or political system, that influence an individual’s development. Finally, the macrosystem includes the macro-environmental factors that influence development (Rosa & Tudge, 2013). The theory focuses on how immediate and indirect elements interact with each other and work together towards an individual’s development under the influence of macro-environmental factors. Interactions in the immediate environment need to occur on a regular basis over a period of time in order to have significant effects (Krishnan, 2010). This study has a focus on the inner circles of Microsystem and Mesosystem.

3.1.3.2 Application of Bioecological Theory

This study explored the values and aspirations behind parents’ decisions when choosing out-of-school programs for their highly gifted children. The bioecological theory was used as one of the theoretical frameworks to guide the design of the research questions. The guiding model is shown in Figure 3.1.
The bioecological view of human development could be used to explain how parents view the ways in which inherited qualities (giftedness), and the surrounding environment (parents, friends, teachers, schools, policies, and education systems) interact to influence a gifted child’s development. The research question for this study allows participants to disclose their children’s interaction with peers, teachers, and parents within the home, school, and out-of-school environments (microsystem), and how those microsystems interact in the mesosystem a child finds themselves in. This study focuses on the child’s direct interaction within each microsystem; the connections of the different microsystems in the mesosystem help shape child development.

![Diagram of bioecological theory]

*Figure 3.1. Application of bioecological theory.*

### 3.1.3.3 Sociocultural Theory

Vygotsky’s sociocultural theory considers how surrounding social elements contribute to an individual’s learning. It addresses the fundamental role of social interaction in an individual’s cognitive development and examines how interactions with both peers or adults and culture and environment impact an individual’s learning. (Vygotsky, 1978). Like bioecological theory, sociocultural theory centres on the individual. The three main concepts
within the theory are social interactions, the ‘more knowledgeable other’, and the zone of proximal development (Polly, Allman, Casto, & Norwood, 2018). Vygotsky (1978, p. 86) defined the zone of proximal development as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers”. Social interactions occurring in the zone of proximal development allow individuals to learn from more knowledgeable peers. Sociocultural theory focuses on the broader social context of any human activity and the boundary between individual and others.

3.1.3.4 Application of Sociocultural Theory

This study explores the values and aspirations behind parents’ choices of out-of-school programs for their highly gifted children. Sociocultural theory was one of the two theoretical frameworks used to guide the research questions. The guiding model is shown in Figure 3.2.

![Diagram](image_url)

Figure 3.2. Application of sociocultural theory.

The sociocultural view of social interaction as a foundation of human learning can be used to explain how highly gifted children’s interactions with peers, teachers, and mentors
influence their learning and development. The research question for this study allows participants to disclose how they view their children’s interactions with peers, teachers, and parents and how these interactions influence their children’s ability to learn. The application of sociocultural theory could help educators understand how individuals’ social interactions impact how they learn.

3.2 Study Significance

Given the apparent gaps identified in the literature review, this study focuses on mothers’ voices by exploring the values and aspirational factors surrounding the participation of their gifted children in out-of-school programs. Previous research findings suggest that parents have expressed concerns that the current Australian school system cannot provide appropriate academic challenges or social interaction opportunities for highly gifted children (Gross, 2000; Thompson & King, 2015). Parents are left to seek opportunities outside school for their highly gifted children’s learning and development. The findings of this study provide valuable information for stakeholders such as schools and policymakers to consider when developing extracurricular activities for highly gifted children. This parental recognition of learning opportunities outside the school environment led to the key research question.

3.3 Research Question

This study explored the various values and aspirations behind mothers’ decisions when choosing suitable out-of-school programs for their children. To explore different values and aspirations, this study asked the following research question:

What are the values and aspirations of mothers for their highly gifted upper-primary school children’s participation in out-of-school programs?

To provide further focus, four research sub-questions were utilised in data collection to reflect the elements of the bioecological theory and sociocultural theory frameworks that drive the inquiry:
I. Why do mothers send their highly gifted children to out-of-school programs?

II. How do mothers choose out-of-school programs for their highly gifted children?

III. What are mothers’ perceptions of the value of out-of-school programs?

IV. How do mothers evaluate out-of-school programs?

3.4 Data Collection

3.4.1 Data Collection methods

The data collection process took place in two stages. In the first stage, an email was sent to parents to collect background information about them and their highly gifted children. Background information was collected, including demographic data, out-of-school programs their children have attended, the nature of those out-of-school programs, and future out-of-school programs they might attend. In the second stage, eight Skype interviews took place. A set of semi-structured and open-ended questions were used in the interviews to collect data and to answer the research question and sub-questions. Those semi-structured questions explored information, experiences, attitudes, and feelings of the participants (Creswell, 2008).

Before the interview questions were asked, a selection from the following five icebreaker questions was used to establish a relationship with participants and obtain more background information about their highly gifted children, as per the interview protocol (see Appendix A).

Icebreaker questions:

Please tell me about:

1. Your highly gifted child.

2. Your general feelings about out-of-school programs for highly gifted children.

3. Your most recent experience with out-of-school programs.

4. Was this a positive experience? A negative experience? Why?
5. What future out-of-school programs might you consider? Why?

The interview questions aimed to investigate the participants’ personal experiences, values, perceptions, and motivations. They focused on the deep, lived meaning that participants have experienced (Marshall & Rossman, 2006). To encourage participants to speak freely and openly, it is important to protect their identities. All responses from parents and any reference to their children and third parties were recorded using a pseudonym or initials only.

The following interview questions were used to guide the interview. The order of the questions is indicative only, as parents could answer two or more questions at once.

Table 3.3. Research and Interview Questions

<table>
<thead>
<tr>
<th>Research questions and sub-questions</th>
<th>Interview questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why do parents send their highly gifted children to out-of-school programs?</td>
<td>3. What motivates you to send your highly gifted children to out-of-school programs?</td>
</tr>
<tr>
<td></td>
<td>4. What is the main purpose for sending your highly gifted children to out-of-school programs?</td>
</tr>
<tr>
<td></td>
<td>9. What benefits do you hope to receive from out-of-school programs?</td>
</tr>
<tr>
<td>How do parents choose out-of-school programs for their highly gifted children?</td>
<td>5. How do you gather information about out-of-school programs?</td>
</tr>
<tr>
<td></td>
<td>6. What key elements/values do you consider when choosing out-of-school programs for your highly gifted children?</td>
</tr>
<tr>
<td></td>
<td>8. How much does your child contribute to the decision-making?</td>
</tr>
<tr>
<td>What are parents’ perceptions of the value of out-of-school programs?</td>
<td>10. What do you value about participation in the out-of-school programs you have chosen for your highly gifted child?</td>
</tr>
<tr>
<td></td>
<td>11. After attending out-of-school programs, how do your children benefit from the experience?</td>
</tr>
<tr>
<td></td>
<td>12. What more do you want to tell me about those out-of-school programs?</td>
</tr>
</tbody>
</table>
3.4.2 Participant Selection Criteria

This study used purposive sampling to select participants based on their membership in a subgroup with defining characteristics (Creswell, 2008). The first selection criterion was parents of highly gifted children who have an IQ above 145 on the Wechsler Intelligence Scales for Children (WISC-V), Stanford-Binet test (SB-5), or Wechsler Preschool & Primary Scale of Intelligence – Fourth Edition (WPPSI – IV). The WISC-V assesses the general thinking and reasoning skills of children aged 6 to 16 years (Wechsler, 2016). The WISC-V has 10 primary subtests and six supplemental subtests. The Full-Scale IQ is comprised of seven primary subtests: Similarities, Vocabulary, Block Design, Matrix Reasoning, Figure Weights, Digit Span, and Coding (Wechsler, 2016). Another cognitive assessment is the Stanford-Binet (SB-5) test, which has standard scores for each subtest plus composites for verbal IQ, nonverbal IQ, brief IQ, full scale IQ, and five factors—fluid, knowledge, quantitative, visual-spatial, and working memory (Roid, 2003). WPPSI – IV is a downward extension of WISC, that is used to assess children from 2 years to 7 years old (Aylward & Stancin, 2008). WISC-V, WPPSI – IV, and SB-5 test results are accepted or recommended IQ tests for membership in gifted associations (Australian MENSA, 2018; QAGTC, 2018) and are used as the measurement of IQ for this study.

The second selection criterion was parents with highly gifted children who were currently enrolled in Years 3-6 and who are attending schools in Australia. Gifted pre-teens experience social pressure like other pre-adolescents; they often feel the need to be ‘normal’
like non-gifted peers. Furthermore, the further a child is from the normal IQ population, the more aware they are of their different characteristics (Fonseca, 2011; Solow, 1995). At age 12, when children go through early and mid-puberty, parents play a significant role in their children’s lives and their parenting could consequently influence their outcomes and achievements in adult life (Worthman et al., 2016). Another reason for choosing upper-primary students is that although students continue to show interest in out-of-school programs at this age, the participation rate drops significantly during the transition from elementary to middle school (Lauver, 2004) as gifted students in middle and high school have much busier schedules and other commitments (Bolshakova, 2017).

In addition, as this study focuses on the values and aspirational factors behind parental decisions regarding out-of-school programs for highly gifted children, it is essential that the highly gifted students are current students in mainstream schools. Parents who home-school their gifted children use many out-of-school programs as part of their children’s daily learning plan or additional learning opportunities. This makes those out-of-school programs a part of their routine learning or a substitution of curriculum learning; therefore, parents in these circumstances were excluded in this study.

### 3.4.3 Participant Selection Process

Guest, Bunce, and Johnson (2006) argued that saturation could occur as early as the first six interviews when using non-probability samples if they involve the emergence of meta-themes. Due to the breadth and scope of this study, parents of eight highly gifted students in Years 3-6 were selected. This sample size allowed in-depth information gathering (Curtis, Geslerb, Smitha, & Washburn, 2000) and enabled “analytic generalisation about how the selected cases fit with general constructs rather than statistical generalisations” (Curtis et al., 2000, p. 1002).
Parents of eight highly gifted upper-primary children were selected through expressions of interest from members of Facebook groups called “Parents of gifted children Australia-tested” and “Parents of gifted children Australia”. Parents provided evidence that their children met both selection criteria by providing IQ test reports and school enrolment status at the time of application. The first eight applicants who fulfilled both selection criteria were selected. After the invitation was posted in the two Facebook groups, only mothers showed interest and responded to participate in this study.

Although every effort was made to interview both parents who live with each highly gifted upper-primary child, it happened that all eight parent applicants were mothers. This result is not surprising; as Tan and Goldberg (2009, p. 447) claimed, “mothers' involvement was higher than fathers' indirect involvement at school, homework involvement, extracurricular involvement, and interpersonal involvement”. According to the Australian Human Rights Commission (2018), 70% of Australian women are primary unpaid carers for their children. Therefore, although the original intention was to collect all parents’ voices, the study focus necessarily shifted to focus on the perspective of mothers.

3.4.4 Ethics

This research has a low risk of harm and no significant ethical issues. All participants were volunteers, and there were no conflicts of interest. Appropriate ethical clearance was obtained from the Griffith University Human Ethics Review (see Appendix E). All participants signed an adult consent form (see Appendix C) and received a copy of the information sheet (Appendix B) regarding the purpose of the study; they understood they had the right to withdraw at any time.

3.4.5 Participants for this Study

Eight participants, all of them mothers with a highly gifted child currently enrolled in Years 3-6 across Australia, volunteered to participate in this study. All eight of their children
were formally identified by psychologists or school counsellors as highly gifted (IQ 145+) through WISC IV/V, SB-5, or WAPPSI-IV. Personal background information was collected in writing prior to all Skype interviews with additional information collected after interviews. All participants’ demographic information and how they value education in terms of family budget are detailed in Table 3.4, which also presents demographic information about the participants’ children, including the out-of-school programs they currently attend or have attended and the schooling experience of each child. All participants in this study expressed that they value education highly and are willing to sacrifice spending in other areas to accommodate further educational spending.
Table 3.4. Participants’ Demographic Information and How They Value Education

<table>
<thead>
<tr>
<th>Participant No.</th>
<th>Marital status</th>
<th>Age group</th>
<th>Highest qualification</th>
<th>How participants value education in terms of family spending</th>
<th>Number of children (order of the gifted child)</th>
<th>Location (State)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>married</td>
<td>30-39</td>
<td>Undergraduate</td>
<td>Our first child is attending private school. After mortgage, bills, and food, education is the next biggest budget consideration. Value education highly.</td>
<td>2 (2nd)</td>
<td>Western Australia</td>
</tr>
<tr>
<td>2</td>
<td>married</td>
<td>40-49</td>
<td>Undergraduate</td>
<td>It is important, as we forego family holidays &amp; other luxuries in order to pay for the extension education program.</td>
<td>2 (1st)</td>
<td>Queensland</td>
</tr>
<tr>
<td>3</td>
<td>married</td>
<td>30-39</td>
<td>Undergraduate</td>
<td>Reasonable. There is a mixture of education-based and sporting extracurricular activities that are undertaken. Prefer public to private education.</td>
<td>2 (1st)</td>
<td>Victoria</td>
</tr>
<tr>
<td>4</td>
<td>married</td>
<td>40-49</td>
<td>Postgraduate</td>
<td>As much as it needs to be at the time, as educational fit has a huge impact on mental health with our particular child. Child is twice-exceptional and requires substantial adjustments at school – we have found public schools are generally better with twice-exceptional children. However, if a private school was a better option, we would pay for it. Likewise, if workshops etc. come up that she is interested in, we pay for those, but she is more likely to require supplies for her interest at the time.</td>
<td>1</td>
<td>ACT</td>
</tr>
<tr>
<td>5</td>
<td>married</td>
<td>30-39</td>
<td>Postgraduate</td>
<td>We would happily pay private fees; it is just about finding a school that is a good fit. We would certainly prioritise a good school and would be prepared to make sacrifices (such as choosing more affordable holiday choices and frequency of updating vehicles) to afford fees.</td>
<td>2 (1st)</td>
<td>Queensland</td>
</tr>
<tr>
<td>6</td>
<td>married</td>
<td>40-49</td>
<td>Vocational</td>
<td>Highly value spending on educational items/experience.</td>
<td>2 (1st)</td>
<td>Western Australia</td>
</tr>
</tbody>
</table>
Apart from daily expenses, I think investment in education is the most important. Schooling costs approx. $15k. On top of this is paying for mentors, resources, support, which are all a part of education. We would easily spend $20-$25k on ‘education’ for our child.

Table 3.5. Highly Gifted Children’s Demographic Information and Experience at School and Out-of-School Programs

<table>
<thead>
<tr>
<th>No.</th>
<th>Gender</th>
<th>Age</th>
<th>School grade</th>
<th>IQ scores and assessment</th>
<th>Out-of-school programs attended or still attending</th>
<th>School life</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>7 years 4 months</td>
<td>3</td>
<td>147 (SB-5)</td>
<td>Soccer, piano, swimming, basketball, irregular programs organised by Australian MENSA, Australia Gifted Support Centre and other private organisations.</td>
<td>Accelerated from Year 1 to Year 3.</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
<td>8 years 8 months</td>
<td>4</td>
<td>149 (WPPSI-IV)</td>
<td>Attending regular extension education once a week, QA Young Einstein club and irregular events organised by Queensland Association for Gifted &amp; Talented Children Inc (QAGTC).</td>
<td>Early start – started school at Year 1 instead of Prep year. Formally diagnosed as twice-exceptional (ADHD).</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>8 years 4 months</td>
<td>4</td>
<td>146 (WPPSI-III)</td>
<td>Attending regular piano lessons and attended soccer, cricket, swimming, and irregular programs organised by GATEWAYS.</td>
<td>Accelerated from Year 1 to Year 3. This boy is a very social child and has a group of good friends.</td>
</tr>
<tr>
<td>4</td>
<td>Female</td>
<td>10 years 11 months</td>
<td>6</td>
<td>169 (WISC-IV)</td>
<td>Attending regular science extension programs and attended irregular programs organised by BRAINways and GATEWAYS.</td>
<td>Diagnosed with ASD, anxiety disorder, and ADHD which impacts her ability to attend out-of-school programs.</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>10 years 11 months</td>
<td>5</td>
<td>166 (WISC-IV)</td>
<td>Attended swimming, art, soccer, and irregular STEAM workshops organised by a private organisation. Attending regular drama and</td>
<td>Formally diagnosed as twice-exceptional (ADHD) with issues on emotional self-regulation and emotional control.</td>
</tr>
</tbody>
</table>
gymnastics lessons, Scouts, QA Young Einstein club, and irregular workshops targeting gifted children.

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Age</th>
<th>IQ</th>
<th>Activities and Academic Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Male</td>
<td>7 years 7 months</td>
<td>156 (SB-5)</td>
<td>Attended irregular STEAM and Lego workshops organised by private organisations and attends regular gymnastics, swimming, karate, and basketball lessons. Currently attending regular piano lessons. Double accelerated at school.</td>
</tr>
<tr>
<td>7</td>
<td>Female</td>
<td>9 years 10 months</td>
<td>145 (WISC-V)</td>
<td>Attended irregular workshops organised by GERRIC and the University of Wollongong. Did not accelerate at school; a strong feeling of social isolation at school.</td>
</tr>
<tr>
<td>8</td>
<td>Male</td>
<td>8 years 9 months</td>
<td>146 (SB-5)</td>
<td>Attended many sporting activities and irregular STEAM or science workshops organised by Australian MENSA and other private organisations. Started kindy at 3.5 years old, accelerated from Year 3 to 5 and doing Year 6 Mathematics.</td>
</tr>
</tbody>
</table>
Of the eight highly gifted children, seven were in upper primary school with one child currently in Year 3. Initially, the intention was to recruit parents of highly gifted children from years 4-6 in Australian schools. Participant 1 (child currently in Year 3) is an exception due to the difficulties experienced finding participants for this study. Participant 1 had her son assessed in 2017 by a psychologist. After he was formally identified as highly gifted, Participant 1 spent the last two years attending a wide range of out-of-school programs including interstate programs. Participant 1 was passionate about sharing her experiences with her son’s attendance in out-of-school programs and brought some valuable insights to this study.

Three out of eight participants are twice-exceptional children. Those children receive medical treatment and attend regular schools. Parental considerations are discussed in Chapter 4.

3.5 Data Analysis

Thematic analysis suggested by Creswell (2008), with minor adjustments suggested by Smith (2008) (see Table 3.5) was used for data analysis. Thematic analysis provides flexibility when analysing detailed data, and is a particularly useful method for examining different perspectives of participants and highlighting similarities and differences (Braun & Clarke, 2006). After all interviews were completed and recorded, the audio recordings were transcribed by professionals. All transcripts were then subject to a preliminary analysis to obtain a general sense of the data. The transcripts were then read alongside the researcher’s field notes to gather some broad directions. After reading through all transcripts multiple times, some repeated, significant responses emerged (Creswell, 2008; Smith, 2008). These key phrases became the themes around which the coding process started. A group of code words or phrases were assigned to the text segments that best described the meanings. Next, after coding the whole text, a
list of codes from the coding process was compiled from data collected (Creswell, 2008). Creswell (2008) advised that the goal is to reduce a list of codes down to 25-30, as more manageable for analysis. After that, similar codes can be grouped together, representing a theme. Some themes then clustered together, with some emerging as superordinate themes (Smith, 2008).

Finally, the list of codes are grouped into five to seven themes (Creswell, 2008). Along with superordinate themes, a table is then constructed (Smith, 2008), (See Appendix F). In addition to having prevalence within the data, themes should represent the major experiences, feelings, perceptions, ideas, and expectations and become a core element in the qualitative data research (Creswell, 2008; Smith 2008).

The data analysis process adopted for this study is illustrated in Table 3.4.

Table 3.6. The Qualitative Process of Data Analysis

<table>
<thead>
<tr>
<th>The qualitative data analysis process (from Creswell, 2008, p. 224; Smith, 2008, pp. 66-75)</th>
<th>Application in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: The researcher collects data</td>
<td>Conducted and recorded interviews (Creswell, 2008).</td>
</tr>
<tr>
<td>Step 2: The researcher prepares data for analysis</td>
<td>Interview recordings professionally transcribed along with written field notes in preparation for analysis (Creswell, 2008; Smith, 2008).</td>
</tr>
<tr>
<td>Step 3: The researcher reads through data</td>
<td>Transcripts read multiple times to develop a general sense of the data. Some repetitive but significant responses emerged. These key phrases then became the themes (Creswell, 2008; Smith, 2008).</td>
</tr>
<tr>
<td>Step 4: The researcher codes the data</td>
<td>Located text segments and assigned a code label to them (Creswell, 2008)</td>
</tr>
<tr>
<td>Step 5: The researcher codes the text for description to be used in the research report</td>
<td>Found similar codes that represented a theme and grouped them together. Some themes were clustered together, with some emerging as superordinate themes (Creswell, 2008; Smith, 2008).</td>
</tr>
<tr>
<td>Step 6: The researcher constructs a list of codes with major themes</td>
<td>A table was constructed, with a list of major themes emerging (Creswell, 2008; Smith, 2008).</td>
</tr>
</tbody>
</table>
3.6 Research Bias

Purposive sampling results in the selection of participants that are refined to meet the objectives of the study. This analytical process is often criticised for its lack of transparency (Smith & Noble, 2014). Therefore, respondent validation strategies were implemented with an aim to reduce research.

3.7 Conclusion

To explore the values and aspirations of mothers who send their highly gifted upper-primary children to participate in various out-of-school programs, eight participants were selected according to the selection criteria. All participating mothers, with one exception, had a highly gifted child currently enrolled in Years 4-6. After collecting basic background information, eight interviews were conducted via Skype. Bronfenbrenner’s bioecology theory and Vygotsky’s sociocultural theory were used to guide the construction of the research questions and the interview questions. After the data collection process, Creswell (2008) and Smith’s (2008) qualitative processes of data analysis were applied.
Chapter Four: Findings

4.1 Synthesis of Findings

The results presented in this chapter reflect the participants’ values and aspirations for their highly gifted children’s participation in out-of-school programs. The factors identified in the data were found to be related to personal experiences, family circumstances, values, and beliefs.

While opportunities for social interactions with like-minded peers is a core aspiration for mothers who value their highly gifted children’s participation in out-of-school programs, it is often combined with other aspirations including cognitive development, psychological enhancement, or physical development. Those contextual factors and how they are linked to sociocultural elements and the two inner systems within bioecological theories are shown in Figure 4.1.

Figure 4.1. Application of theoretical frameworks, placing the child at the centre.
Thematic analysis shows that mothers’ aspirations for their highly gifted children’s participation in out-of-school programs can be grouped into a small number of themes. Opportunities to interact with like-minded peers is central, combined with one or two sub-themes, including physical development, cognitive development, and/or psychological enhancement. It can be deduced that mothers seek social or academic/cognitive values when they send their children to out-of-school programs. Six of the eight participants indicated that their highly gifted children do not enjoy school life, and that is one of the main motivators for sending them to out-of-school programs.

Participants also held aspirations that their children’s attendance in out-of-school programs could supplement the school learning experience, and sought opportunities outside school to further develop skills and knowledge in areas their children had shown interest in. It was anticipated that this would enhance their cognitive development via more challenging contexts and more engaging learning experiences. Physical development was also a concern for some participants, who wanted their children to develop better fine-motor or gross-motor skills and be more rounded people.

Considering some common characteristics of gifted children, participants had the ambition of raising a more rounded person rather than one who was only cognitively advanced. To this end, participants also wanted their children to establish psychological strengths such as self-confidence, self-concept, resilience, and persistence.

4.2 Main Aspirations

4.2.1 Social Interaction Opportunities with Like-Minded Peers

One of the driving aspirations for mothers was the opportunity for their children to interact socially with like-minded peers. All participants indicated that they wanted to provide such opportunities outside school. While peers may not be the same chronological age, they share similar interests or function at similar intellectual levels.
Regardless of whether their child’s school experience was happy or unhappy, all participants aspired for appropriate out-of-school programs to help their children’s social experiences, which would lead to development in other areas. When responding to a question about her child’s social life, Participant 1 said her son is a very social child at school, but she is still looking for opportunities for him to meet like-minded peers. In her own words:

The stuff that we do with Mensa is totally about finding your tribe and playing with kids who are like-minded and just being you and hanging out with them. The same with the gifted games night, that’s another one that’s once a month and it’s just kids hanging out together who have got the same wiring. That, for us, has been really important. That also has the double benefit of being a support base for me. Being able to talk openly with other parents who get what you’re going through is really important.

Participant 2, however, has a very different child. Her son does not like school, so attending out-of-school programs is essential for him to interact with peers:

He's getting that social interaction with kids like him as well. So, he's getting that social belonging, which is important because we've had the problems where he hasn't made friends easily. Or, you know, he's had superficial friends but not those deeper friendships. Whereas at Extension Education, I see the benefit that he's getting those deeper friendships.

Out-of-school programs attended by these children can be divided into regular and irregular programs. Regular programs generally fall into the areas of performing arts such as drama, piano or drumming lessons, and different sporting activities. Irregular out-of-school programs generally occur in the areas of STEAM or programs that target gifted children. Participant 6 believes that regular out-of-school programs are
better for establishing connections with peers than irregular ones. However, out-of-school programs that target only gifted children are often irregular. She stated:

I mean from a social perspective, I feel like the regular clubs are good for him. I do not tend to notice that he interacts particularly well with other kids on those one-off workshops like the Bright Minds do, which is kind of a shame because if we’re looking for like-minded peers as a goal from a workshop which you know, to some extent I could say that was probably part of my initial reason for putting him in, I do not feel like it is achieved within that one off, standalone structure. It would be a more regular class that Bright Minds do, or Young Einstein.

When participants sent their highly gifted children to out-of-school programs, they wanted to see their children accepted as part of a group and able to be who they really are. Participant 6 summarised this feeling in the following statement:

That social aspect to see your kids being happy. So, a kid that does not fit in anywhere, to see them socially fitting in somewhere is beautiful. And a lot of us wonder if our kids will ever find that. And he has in different activities. He definitely has found a place where he felt like it was okay, and he'd fit, and he did. He might've been younger, but he didn't feel different.

### 4.2.2 Social Benefits for Children

All participants indicated that social benefits are an important driving factor for sending their children to attend different out-of-school programs. Participants want their children to meet like-minded children. Regardless of their highly gifted children’s social life at school, participants still want their children to join out-of-school programs and make social connections with other children across different types of programs. Similarly, participants felt that attendance in out-of-school programs is essential for
those children who do not enjoy school life as it provides greater opportunities for them to meet intellectual peers, although they may not necessarily be at the same age level. Some participants also felt that out-of-school programs targeting gifted children are places where children can feel a greater sense of belonging and be themselves. This is why participants of children who struggle to make social connections with chronological peers at schools often feel their children’s attendance at out-of-school programs is more critical. Participant 2 believes her son’s attendance at out-of-school programs is essential for him to make social connections he could not achieve in a regular school environment. She talked about how attending out-of-school programs helps him develop better friendships:

He’s getting that social belonging, which is important because we've had the problems where he hasn't made friends easily. Or, you know, he has had superficial friends but not those deeper friendships, whereas at Extension Education I see the benefit that he's getting those deeper friendships.

4.2.3 Social Benefits for Parents

Mothers also utilise their children’s attendance in out-of-school programs for gifted children as an opportunity to meet other parents of gifted children and establish a network or share experiences, as Participant 1 acknowledged:

That (attending out-of-school programs), for us, has been really important. That also has the double benefit of being a support base for me. Being able to talk openly with other parents who get what you are going through is really important.

As discussed in Chapter 2, parents of gifted children face unique challenges and may require parenting support targeted to their needs. One of the characteristics
commonly associated with giftedness is gifted children’s interests aligning more
directly with the interests of older peers and adults (Jellinek, Henderson, & Pfeiffer,
2009). Out-of-school programs provide opportunities for highly gifted children to make
social connections with older peers who may share similar interests. Participant 7 shared
her motivation for her daughter’s attendance in the out-of-school program, mentioning
that

It (participation in out-of-school programs) was mainly for her social
needs because she was very lonely. She could not find any friends in her
age peer, she tried to find a friend in older years, but it did not really work
out.

In response to the same question, “What is your general feeling towards out-of-
school programs?”, it is interesting to discover that Participant 6 allowed her double
accelerated son to make his own decisions on participation in out-of-school programs.
He decided to participate in different sporting activities to gain greater social acceptance
from older peers and others at school. As Participant 6 said,

He’s not interested in joining a team, but he now plays basketball at
lunchtime with his friends at school. So, he has actually chosen that for
himself, chosen to go learn something that would make him fit in better
socially at school.

This behaviour is not unusual, as some researchers have argued that due to
gifted children can adjust their behaviour based on their social surroundings due to their
high cognitive abilities (Chan 2011; Lee et al., 2012).
4.3 Mothers’ Other Aspirations

4.3.1 Cognitive/Academic Development

In addition to providing social interaction opportunities for their gifted children, seven participants also indicated that they sent their children to out-of-school programs to stimulate learning interests or to further develop children’s skills in their areas of interest. Among them, five participants said attendance in out-of-school programs was intended to supplement their children’s regular school learning. The eight children in this study have shown a wide range of interests across different areas, some of them not covered by the Australian school curriculum. It is important to note that participants do not aim for an increase in school grades; they simply want to extend their children’s cognitive learning in their areas of interest. Workshops on STEAM, chess, philosophy, or psychology are among the popular choices for highly gifted children. Such enrichment activities meet participants’ aspirations of cognitive development but also develop children’s interests. Participant 3 is certain her son is never going to get enough cognitive development at school, stating that,

I just to give him something a little bit extra because … I know he is never going to get what he needs out of an average public school as much as they do try to extend. And he still loves it, he's never been bored. But it is really just to give him those extra opportunities to stretch his mind a little bit and think outside the square. Just things I think he would be interested in. He is definitely a sport and mathematically minded being, so I'm not going to send him off to necessarily drama school or writing, because it is just not something that he'd be interested in. It is probably something we should push, because he should push himself. But yeah, wanting to do things that we think he'll enjoy, that he wants to do.
A few other participants shared the same view. Participant 7 also explicitly stated that sending her daughter to out-of-school programs is to supplement her schooling:

Because she was bored, and she likes new things. Initially I think kids should be exposed to different areas and then find things that their heart’s really set in. That’s just my dream I think, and once you find something you really love, and then you continue for the joy, for your passion, and for a happy life.

Four participants indicated that their highly gifted children do have positive school experiences; therefore, mothers seek out-of-school programs to help their children further develop the skills and knowledge in their interest areas. This is due to the reality that their highly gifted children do not receive sufficient extension or challenges in schools. Although more than half the participants’ children have been grade accelerated, subject accelerated, or double accelerated, most participants still want their children to excel in their area of interest or pick up new skills. This can be best summarised by Participant 6’s statement. Her son is double accelerated at school, but she is still keen for him to participate in out-of-school programs.

I guess the idea of doing any general extracurricular activities out of school are really to either extend him in areas of interest or to make him maybe more rounded person with extra sports and those types of things, so maybe to strengthen some of his weaknesses, I guess. So, most of their activities have fallen to one of those two categories, either strengthen their weakness or to tie into an area that interests him and give him some extension there.
Participant 8’s son plays musical instruments, does swimming and other sporting activities, and plays chess. She talked about her intentions for these activities as follows:

It is working his brain, and when I say working his brain I mean that he is learning different things because that calms him but also, as I said, those emotional skills, the executive function, the regulation, the perfectionism, the anxiety, all those types of things.

STEAM-related programs are overwhelmingly popular among participants. All participants’ children have attended at least one coding or science program. Participants send their children to attend these out-of-school programs to explore knowledge in those areas and not necessarily for academic advancement. Moreover, participants believe STEAM programs provide challenges that supplement the school curriculum for their children’s learning needs. Participant 2 has a twice-exceptional child who does not like school, and she made the following statement:

He was not interested in coding before he actually started doing that, so he actually got a new interest now in doing coding. But he is doing high school coding because he was finding all the stuff they were doing in primary school a bit beneath him and really easy, so he was getting bored. So, they have been really good in that regard.

Gifted children have a wide range of interests. Participant 4 indicated that if her daughter had positive and enjoyable experiences, she would talk about her experiences at those programs for weeks afterwards. This mother shared her daughter’s experience at one of the special out-of-school programs for gifted children:

She did one program that was run by Gateways here in Canberra, that was about different types of lying, and she found that really interesting. Those sorts of psychological things she finds quite interesting. We had lots of
different discussions about lying and of course for autistic people, like she and I are, lying is quite an interesting aspect of humanity.

### 4.3.2 Physical Development

Swimming, tennis, soccer, martial arts, and basketball were the most popular sporting activity choices for participants. These individual and team sports are recommended for gifted children who lag in physical development or need well-rounded social experiences (Gross, 2000; Lutostanski, 2018). By attending sports programs, participants want their children to develop not only physical strength, but also enjoy additional benefits such as social acceptance and resilience. Due to the asynchronous development of gifted children, the more intellectual advancement, the more severe is the asynchrony (Goerss, 2011). Swimming and martial art are particular sporting choices for participants as parents want to equip their children with survival skills, including the ability to protect themselves.

Participants who send their highly gifted children to sporting programs want to raise a well-rounded child. They not only want their highly gifted children to excel in many non-sports areas, but to develop physical strength as well. These associated benefits of attending out-of-school programs are highly valued by participants.

In addition to using sporting programs for social interaction opportunities and more balanced development, most participants with twice-exceptional children indicated concern regarding their children’s fine-motor skills. They were looking for sports that would help their children improve these skills and gross-motor coordination. For example, Participant 4 has a daughter who is also autistic and has problems with gross-motor coordination. Therefore, participating in swimming is a way for her daughter to develop her gross-motor coordination skills. Participant 5 also has a twice-exceptional son who experiences problems with fine-motor skills, and that was her initial motivation to engage him in various out-of-school programs. As she said,
The karate would have been because there were questions ... because of
the twice-exceptional diagnosis, there were questions regarding his sort of
fine motor skills. He's always been a bit of a square peg and nobody is
quite sure what to do with him and we could never sort of itemise it down
to, ‘Yes, he definitely has fine motor skills issues’… But because of that
sort of query, we put him into karate lessons thinking that, ‘Oh, that would
be a good way to address those motor skills issues if they are there’.

4.3.3 Psychological Enhancement

Psychological enhancement is another aspiration of participants who send their
highly gifted children to out-of-school programs. In some cases, participants wish to
divert their children’s excess physical energy or use programs as rewards in exchange
for better behaviour at school and at home. Participants hope this will guide their
children to establish a stronger self-concept. If these children do not receive appropriate
extension at school, it can lead to negative behaviour. This was demonstrated by
Participant 2, who talked about her motivation for sending her son to regular and
irregular out-of-school programs for academic extension purposes:

Because R (the child) does not get enough extension at school. When that
does not happen, we get really bad behaviour. He gets violent, he throws
massive tantrums, has huge meltdowns, but when he does extension,
behaviour gets better. So literally the only reason we do it is so we get
better behaviour.

These psychological benefits are very important for participants. Some
participants also mentioned that they sent their highly gifted children to out-of-school
programs to help them develop character qualities such as persistence and resilience.
Past success or perfectionism among gifted children can lead to lead to procrastination
(Foster, 2007), and this weakness can prevent gifted children from achieving their
complete potential. Five participants indicated they want their highly gifted child to be a more rounded person with the development of persistence, resilience, and self-confidence. As Participant 2 observed, “We just want him to be a resilient child … who wants to push himself. He does need a bit of push to extend himself … to become quite well rounded and resilient.” This sentiment was best summarised by Participant 8 when she talked about her aspirations for her son in the local Scouts program:

One is because he really, really wants to do it and the other thing is that I think it will be really good for him socially with other kids who love the outdoors and doing stuff in the outdoors and also empowerment and self-confidence and all that stuff, self-efficacy, because that’s one of the things they really work on. I think the Scouts is probably the one on the radar that we haven’t done with him.

Persistence was another quality participants wished to see their children develop and was the intention of Participant 6 when she enrolled her son in regular piano lessons. When asked about this, she said,

At 7 years old last year, he decided he really loved piano and he wanted to stick with it. So, he has done that. Really, piano as I said, it is something we have insisted on. But one of the things I think he has gotten out of it most of all has been the skill to persist.

Participant 6 is not alone in her view. Participant 3 shared similar aspirations for her son’s psychological enhancement.

Honestly, we just want him to be a resilient child who wants to push himself. Gifted kids can be really lazy…. They just want to do what is easy. So, I think he does need a bit of a push to extend himself a little bit and to become quite well rounded and resilient. And that is all we want for him as an adult; that he is aware that he’s got some talents, and he is not afraid to try and push himself to use them.
4.3.4 Summary

When investigating participants’ initial aspirations for their highly gifted children when attending a wide range of out-of-school programs, it is evident that participating parents wanted to raise a well-rounded child. Providing more opportunities for better social interaction with like-minded peers was a major focus for all participants. In addition to providing more social interaction opportunities, participants also identified other aspirations behind their highly gifted children’s attendance in out-of-school programs. Some participants choose enrichment programs that could extend their children’s cognitive learning in their interest areas; some focused on the development of fine-motor or gross-motor skills (a lack of which is sometimes associated with autism for twice-exceptional children) (Provost, Heimerl, & Lopez, 2007). Several participants focused on the enhancement of their children’s psychological strengths such as resilience, persistence, self-confidence, or self-concept – all of which can have issues associated with gifted children’s maladaptive perfectionism (Neumeister & Finch, 2006). The main themes emerging as parents’ aspirations for their highly gifted children in out-of-school programs are outlined in Figure 4.2.
4.4 Mothers’ Evaluation of the Value of Out-of-school programs

When evaluating out-of-school programs, children’s enjoyment is the key factor. If their highly gifted children enjoy the learning experience and are able to make social connections, then those programs have perceived value for mothers. From an academic/cognitive perspective, participants want their children to engage in challenging activities and enjoy the learning experience by attending the programs. From a social perspective, participants want their children to meet like-minded peers from different age groups and establish friendships. If children enjoy the activities provided, because of the challenge or because of meeting new friends, then those programs meet the expectations of participants.

Conversely, if programs offer age-appropriate content and provide no extended learning for highly gifted children, then children often feel bored and show no interest. In out-of-school programs that do not necessarily target gifted children, teachers or
facilitators do not usually understand gifted children. Some participants described negative experiences with facilitators who misunderstood gifted children’s boredom as disruptive behaviours.

Participants’ perceptions of value align with their initial aspirations. Social and cognitive/academic benefits are highly valued by participants. If out-of-school programs can provide a positive and enjoyable experience through challenging activities or opportunities for social interactions, those programs have perceived value for participants. This can be best summarised by Participant 3’s statement:

His enjoyment, really. We are never gonna force him to do things that he doesn't want to do, but he is a pretty easy-going kid, he really ... he likes it, he does not necessarily go on and want to do them all the time, but he has that choice, and as long as he feels like he gets something out of it, then I find it is worth paying for.

4.4.1 Cognitive/Academic Value

Although some of the highly gifted children in this study were accelerated at school, many participants still felt their children did not receive enough academic challenges during school terms. Therefore, participants seek enrichment activities for their gifted children through attendance at out-of-school programs supplements school learning. The pursuit of academic or intellectual advancement in the areas of children’s interests is important for these participants. When asked to evaluate out-of-school programs, participants highly valued programs that could engage their highly gifted children and extend their learning. Out-of-school programs which target gifted children, such as QA Young Einstein club, GATEWAYS, BRAINways, or GERRIC programs, are highly valued by participants as they provide learning activities above chronological age that are tailored to the needs of gifted children. Most participants were willing to travel for these out-of-school programs as they believed their children would be
challenged by the activities provided. Some participants were willing to replace a school day with regular out-of-school programs. Participant 7 expressed displeasure at seeing her daughter come home from school feeling unhappy because she was not challenged or engaged in school learning; therefore, this mother’s perception of value for out-of-school programs is to provide academic benefits. Regarding how she values the importance of out-of-school programs, she made the following comment:

I think in the last two years, very acute two years, it plays a very essential part in her feeling happy, feeling normal, feeling connected. I think it (attending academic out-of-school programs) is very important, very essential, otherwise she will not feel happy to continue to go to school, because she was really, really disengaged, like a shutdown kind of mode, a sense of feeling happy.

Some participants want to engage their children in out-of-school programs for things they cannot learn from school or at home. Those areas range from psychology or philosophy to the arts. The unfamiliarity of the subject area itself presents challenges for these children. Participant 6 summarised the importance of out-of-school programs for her son thus:

Particularly as I said, even with his double acceleration, he still hit the kind of the top end of his year level with some of his subjects and he has been extended at school where they can, but they can only do so much. And without those activities outside of school, he is just not moving forward. He is not moving forward intellectually. And if he is not moving forward intellectually, it plays back into his social abilities and his emotional maturity and all of those things because if he cannot move forward, he's just stuck. So, I think they have been immense value. They really have.
4.4.2 Social Value

As discussed earlier, social interaction is the key aspiration behind participants’ decision to enrol their highly gifted children in out-of-school programs. If these children can establish friendships or meet like-minded people at these programs, then the programs meet participants’ expectations. Although some participants indicated that their children are socially happy in school, they still seek social value when sending their children to out-of-school programs. They want their children to meet peers from a wider community with no age restrictions. Participant 3 said her son is great at school: even with grade acceleration, he seems to fit in well. However, she still finds sending her son to out-of-school programs such as GATEWAYS is important for him to meet more like-minded children. For Participant 4, her daughter feeling socially unhappy at school is a source of distress. When asked what value she is seeking when she sends her daughter to out-of-school programs, she responded,

She does not have a huge social circle, just a few friends that she has common neurology with, that she has connected with and then she obviously communicates with them online as well as seeing them. But when you start going to those courses you quite often see the same children going.

For children who do not have positive social interactions at school, the social value of attendance at out-of-school programs is extremely important for their parents. For some children, finding a place where they belong and are able to be themselves can improve their behaviour. As Participant 6 said,

The benefits for us as a family or us as parents are that those opportunities for him to go do that and be in a space where he can do that mean
improved behaviour at home because he's happier. He feels more accepted.

It is no surprise that if children enjoy their experience at out-of-school programs, they are less frustrated and exhibit better behaviour at home. Participant 4’s daughter is double accelerated at school; however, with an IQ of 169, she struggles to find other children at her level. Thus, attending out-of-school programs is an opportunity for her to meet like-minded peers. Participant 6 made the following comment about the importance of social value from out-of-school programs:

I think it takes less effort for her to socialise with people who are closer to her intellectual level, you are not having to please yourself, and explain yourself all the time and that is less stress for her. So, of course, she is going to be less overwhelmed after a day spent with her intellectual peers than she is at school.

Social value from out-of-school programs is vital for participants. Participant 7’s daughter is now in the Opportunity Class (OC) where her daughter can find children she can connect with. Because her daughter’s social needs are met in this class, Participant 7 considers sending her daughter to out-of-school programs less essential than before.

Social connection emerged as the main aspiration for all participants in the study. When out-of-school programs are able to provide opportunities for highly gifted children to meet like-minded peers, participants perceive them as valuable.

4.4.3 Summary

Mothers’ perceptions of the value of out-of-school programs can be categorised as cognitive/academic or social. Even if their children are granted grade or subject acceleration at school, participants believe there is still a need for enrichment and extension for their highly gifted children. The enrichment activities cover a wide range of interests, not just school curriculum areas. If those children can experience
challenges not offered at school or are able to meet like-minded peers, they enjoy the experience.

4.5 **Sources of Information**

When making decisions about their children’s attendance in out-of-school programs, participants often gathered valuable suggestions from professionals such as school counsellors, teachers, or psychologists.

If the school does not provide such information and parents do not want to pay for the advice of psychologists, they seek advice from fellow parents through Facebook groups or other associations for parents with gifted children such as American MENSA or QAGTC (Queensland Association for Gifted & Talented Children Inc). There are many parent support groups on social media, and parents often share information, and their experiences with available out-of-school programs.

4.5.1 **Professionals**

Most participants accessed psychologists to have their children tested, with the exception of Participant 7 whose daughter was tested at 8 years and 10 months by her school counsellor. Participants usually did not know what it meant or what to do when their children were identified as highly gifted.

Some schools would advise parents of suitable out-of-school programs available for their children. Participant 5 considers herself lucky, as the head of curriculum at her son’s school is very supportive: “The Bright Minds program was first cited by the head of curriculum at school, and through that, we heard about the Young Einstein program.” As her daughter was tested by her school counsellor, Participant 7 receives recommendations from the school regarding out-of-school programs available for her daughter. Conversely, Participant 2’s son’s school is not very supportive; she went to a psychologist who tested her son and sought advice: “I have done a lot of, again,
research. And the psychologist was a good port of call to start with.” Regardless of where participants seek professional advice, they do trust professionals’ experience and knowledge regarding what out-of-school programs would be most suitable for their children.

4.5.2 Fellow Parents

Many participants are part of support groups on social media. A few are also members of associations for parents with gifted children. It is important to note that all participants were recruited through Facebook groups such as “Parents of gifted children Australia-test” and “Parents of gifted children – Australia”. Although a post was made at the Australian Mensa Parents Group, no participants were recruited through that channel. Many parents tend to trust fellow parents’ experience on issues regarding highly gifted children. For example, Participant 3 finds word of mouth a good way to gather information on out-of-school programs and shared how other parents on a Facebook group helped her.

I get a lot of information off the Facebook Gifted Parents group that has been a fabulous resource for me. And also, there is a local version of that group down here in as well that is great for different things around here.

Other participants shared how Facebook groups have helped them. Participant 1 noted how she locates good out-of-school programs in the local area via fellow parents in a Facebook group:

There’s closed Facebook Groups, such as Beautiful Minds Perth, or Beautiful Minds WA. Lots of parents there sharing their ideas and saying, "This kid's doing this or my kid's doing that. Do you want them to sign up? We found this." A lot of community sharing is how we find the stuff.
Parents would go the extra mile to locate good out-of-school programs for their children. As Participant 6 summarised,

Facebook is a great one because just joining pages of places like Mathematics clubs. My Facebook feed is covered in things that are of no interest to me but are of great interest to my children. So, all sorts of clubs that I joined their pages so that I can see what activities they have got going on that might be suitable for kids.

These social media groups are part of channels where participants conduct their own research on suitable out-of-school programs available.

4.5.3 Summary

Most parents do not have prior knowledge about how to raise a gifted child, owing in part to limited research on parenting gifted children (Jolly & Matthews, 2012). Therefore, parents tend to rely on fellow parents or professionals who hold expert knowledge about such children. As assessments of giftedness are often performed by psychologists, parents tend to seek advice from the psychologists who tested their children. Some school counsellors or management do offer support for parents with gifted children, but not all schools are helpful in this regard. Therefore, parents also need to seek advice from fellow parents through social media groups or other localised or national associations for parents with gifted children. Many participants find it useful to be part of those localised social media groups as they can easily access localised information. This is the first step in participants’ decision-making process in choosing suitable out-of-school programs for their highly gifted children.

4.6 Selection Criteria for Out-of-School Programs

Once participants gather a list of available out-of-school programs for their children, they look at the elements of each program and consider practical aspects of attendance. At the start of the decision-making process, participants consider practical
elements such as cost and location to eliminate options that are not feasible. Participants then look at elements of out-of-school programs such as age requirements, the experience of the facilitators and teachers, or if the programs exclusively target gifted children. Some participants indicated they often have to be selective about programs they choose, as they are not in the financial position to attend all suitable programs. When choosing suitable out-of-school programs for their highly gifted children, final decisions are based on children’s preferences. At the final stage of decision-making, all participants said they consult their children to see if they are interested in the programs shortlisted by their parents. When asking participants to rate their child’s contribution to the decision-making process, all participants rated their children’s contributions at above 90%. The decision-making process is outlined in Figure 4.3.
4.6.1 Practical Considerations

As out-of-school programs are predominantly self-funded, there are practical considerations that play an essential role in participants’ decision-making processes. A few participants do not live in capital cities where most out-of-school programs take place, thus have to consider the cost and travelling time involved. Many participants said financial circumstances often limit their ability to send their children to all suitable out-of-school programs or to anything that is not located locally. For example, Participant 7 lives in the city of Wollongong and often encounters difficulties in finding suitable out-of-school programs locally. She has sent her daughter to attend workshops run by the University of Wollongong, but those programs are often open to anyone interested. This does not fulfil her initial motivation for her daughter to establish social connections with like-minded peers, and her daughter did not enjoy the
age-appropriate activities provided. Therefore, Participant 7 saves for more worthwhile trips to Sydney to attend workshops run by GERRIC, which target gifted children and their parents. Participant 7 finds those programs are value for money due to her daughter’s positive experiences.

Another practical consideration is the children themselves. Participant 4 has a twice-exceptional child with an IQ above 160 and a diagnosis of anxiety disorder and ADHD, which impacts her ability to attend out-of-school programs. Participant 4 has very limited options for suitable programs due to restrictions caused by her child’s complex needs:

She is a very poor traveller. That is the autism side of things. She hates travelling, she hates going to new places, it takes her a long time to settle into a new place. Going to and staying in a hotel is difficult and it is for me as well because there are so many different smells in the hotel from different people and cleaning products, it’s just too difficult.

For Participant 6, sending her son to out-of-school programs is a must-do thing, as she believes her son does not receive sufficient extension at school. However, she claims her family is just an average income family so she must calculate “what hourly rate are these people actually averaging that out to?” This is to ensure every dollar is ‘bang for your buck’. Although most participants are willing to spend money on their children’s attendance in out-of-school programs, many have expressed the limitations of their financial circumstances.

According to some participants’ experiences, there are wide cost discrepancies between programs. For example, a 2-day coding program may charge $300 while a 4-hour program may charge $200. Since most participants have financial constraints, they must carefully calculate the cost involved for attendance and travel.
4.6.2 Elements of Out-of-School Programs

The nature and quality of out-of-school programs can vary, and participants do consider these elements when selecting the most suitable programs for their highly gifted children. Some participants look for programs that target gifted children, as they hope to find programs that not only extend their children’s skills in their interest areas but also provide their children with access to like-minded peers. Participants with twice-exceptional children research the background and experience of the teachers or facilitators for out-of-school programs. A few participants have sent their highly gifted children to out-of-school programs where the facilitators did not understand the special needs or learning styles of gifted children and often view their behaviour as disruptive. If teachers and facilitators do not understand highly gifted children, the misunderstandings can result in a disastrous situation for the child. For example, Participant 5 has an ADHD diagnosed son with self-regulation issues. She talked about her son’s experience as follows:

What we have found in some of the after school programs is that because they may or may not be run by people who have any experience with that, so you know if it is run by a qualified teacher that can be better. But if it is run by someone who just likes doing karate then you do not know whether they know people with ADHD as a diagnosis. Whether they will have ever come across a child or understand that a child is not just being naughty.

Since then, whenever Participant 5 searches for out-of-school programs for her son, she looks at the content but also at the personality and experience of the person coordinating the program. Participant 2 shared the same view when it comes to choosing out-of-school programs for her twice-exceptional son. This is based on advice from her son’s psychologist who addressed the importance of making social connections with like-minded peers, telling her, “You need to get him around like-
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minded peers, because otherwise, he will not be able to cope.” Therefore, she looks for out-of-school programs that target only gifted children to provide her son with opportunities for meaningful social connections.

Many participants said that the greatest difficulty they face is that most out-of-school programs have age requirements, and for safety reasons they do not like to accept children outside those age ranges. Sporting programs have stricter age requirements than other types of programs. Participant 1 finds the age restrictions frustrating, as her son shows significant interest in sport. She said,

Because he picks his skills up so quickly, he could easily have been accelerated but they cannot do that because of his age. We found that with a lot of sports. A (her son) is accelerated at school but often forced to do sports with children at a lower grade; this often prevents him from establishing a close friendship with other peers in his current grade.

Non-sports programs not designed for gifted children are often too easy for them when presented at their chronological age. This situation drove participants to look for out-of-school programs designed for gifted children. Participant 6 finds it essential to chat with program organisers and discover how they alter the depth of information for different age groups and differentiate the delivery of content to accommodate different age groups. To ensure the quality of out-of-school programs, participants usually have a minimum required standard for the trainers and activities provided.

4.6.3 Children’s Preferences

All participants indicated that their highly gifted children make the final decisions about which out-of-school programs they want to attend. The process generally starts with participants presenting their children with a range of out-of-school programs that are economically affordable and for which they are able to make appropriate travel arrangements. Programs were generally chosen based on
recommendations, children’s experiences, or participants’ own research. In some cases, highly gifted children express interest in specific programs to their parents. Both irregular STEAM and regular sporting programs were popular among these children. Many out-of-school programs targeting gifted children run on weekdays, such as GATEWAYS Challenges. In some cases, participants were willing to use out-of-school programs to substitute for normal school days, as they find their children are able to learn more and get greater enjoyment from program attendance. This is because children’s enjoyment is often the ultimate objective for all participants.

The youngest child in this study was Participant 1’s son, aged 7 years and 4 months at the time of interview. Despite his young age, his mother gives him the final say on the out-of-school programs he wants to do. As Participant 1 said, “It is his holidays, it is his passion, and we are trying to build it that way, so he does play a very big role and almost always gets the final call with what he does in the holidays”.

Participant 6 also consults her 7-year-old son about what he wants to do before making any arrangements. “Quite often we go to him when we find something. So, I guess that tampers his role in it. But we always check with him if he's interested in something before booking in. Otherwise, we'd be wasting our money.”

### 4.6.4 Summary

It is no surprise that highly gifted children in this study play a vital role in the decision-making process, as the enjoyable experience for their gifted children is most significant value in participants’ decision making. With self-funded out-of-school programs, participants want to ensure their money is well spent, so if their children do not enjoy the experience, it would be a waste of time and money.

To ensure an enjoyable experience, participants also considered the quality of out-of-school programs. They want to know if programs are run by experienced or
The data collected in this study identified mothers’ individual values and aspirations for their highly gifted children’s participation in out-of-school programs. The study also analysed the decision-making processes utilised by these mothers when choosing out-of-school programs for their children. Although each highly gifted child has unique developmental or learning needs, mothers indicated that opportunities for social interaction with like-minded peers was the main aspiration for their children in out-of-school programs. Mothers generally had other aspirations in conjunction with seeking social interaction opportunities with like-minded peers, such as cognitive development, psychological enhancement, or physical development.

The contextual factors identified in this chapter, such as social interactions in a child’s immediate environment, play an important part in a child’s development as identified in the bioecological and sociocultural frameworks applied in this study. Attendance in out-of-school programs provides an alternative environment that allows social interactions with different peers to occur. In the next chapter, the findings from the study are synthesised and discussed in relation to the existing literature.
Chapter Five: Discussion

In this chapter, the findings about mothers’ aspirations and their perceptions of the value of their highly gifted children’s attendance in out-of-school programs are presented and discussed with reference to existing literature. This study explored the values and aspirations of mothers who send their children (Years 3-6) to out-of-school programs; with a highly gifted child defined as those with an IQ of 145 or above.

Findings indicate that programs such as MENSA Kids Conference and Young Einstein Club are among the most popular programs as they offer social interaction opportunities with like-minded peers for gifted children and are targeted towards gifted children only. Opportunities for social interactions was the main aspiration for these mothers with highly gifted children. While mothers may have other aspirations behind their decisions, they all want their highly gifted children to have enjoyable experiences attending these programs.

5.1 Summary of Findings

The research question for this study is “What are parents’ aspirations for their highly gifted upper-primary children’s participation in out-of-school gifted programs?” To help with data collection and to answer the research question, the four sub-questions and corresponding findings are presented here.

1. Why do mothers send their highly gifted children to out-of-school programs?

1. Mothers want to provide opportunities for their highly gifted children to meet and interact with like-minded peers.

2. Mothers want their children to achieve further cognitive/academic development in their areas of interest.

3. Mothers want their children to become all-rounders and to reduce asynchronous development that often occurs among gifted children. Mothers
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want to help their children develop psychological strengths such as resilience and persistence, as these are identified weaknesses of some gifted children.

II. How do mothers choose out-of-school programs for their highly gifted children?

1. Mothers seek advice from professionals or fellow mothers, utilising professional opinions or personal experiences about programs to make informed decisions.

2. Mothers consider children’s interests and preferences when choosing out-of-school programs, as they want their children to enjoy the experience from their attendance.

III. What are mothers’ perceptions of the value of out-of-school programs?

1. Mothers’ perceptions of the value of out-of-school programs are based on their children’s positive and enjoyable experiences attending those programs.

2. When selecting out-of-school programs for their highly gifted children, mothers look for programs that match their children’s interests and seek both social and academic (skill/knowledge advancement) value from those programs.

IV. How do mothers evaluate out-of-school programs?

1. Mothers consider practical elements such as cost and travel distance.

2. The quality of the trainer/facilitator is also considered.

5.2 Why do mothers send their highly gifted children to out-of-school programs?

5.2.1 Opportunities for Social Interaction

Regardless of highly gifted children’s school social lives, mothers feel it is important for their children to meet and interact with other like-minded peers who may share similar intelligence levels or interests. Due to the narrow definition of highly
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gifted children for this study, it is not easy for these children to find other highly gifted children at school. Attending out-of-school programs provides opportunities for these highly gifted children to find like-minded peers that they might not have access to at their usual schools. The opportunity for these children to find their ‘tribe’ is important for their mothers. As Olszewski-Kubilius and Lee (2004) stated, parents of gifted children expect academic out-of-school programs to provide not only intellectual challenges but also opportunities for social interactions with like-minded peers.

Mothers often preferred to take their highly gifted children to programs where they had opportunities to meet and interact with older peers. For example, attending the MENSA Kids Conference allowed children to meet other gifted children of different ages and children can even attend the adult conference if they were interested in the topic. Mothers felt that meeting peers who shared the same interests or were at a similar intellectual level was more important than interacting with peers of the same chronological age. Riley and White (2016) reported that students who have advanced abilities or qualities compared to their same-age peers may experience estrangement; thus, it is important to provide opportunities for those students to interact socially with like-minded peers. Out-of-school programs, especially those providing for gifted children, offer great opportunities for gifted children to interact socially with like-minded peers (Riley, 2009; Rogers, 2002).

Programs such as The Extension Education Programme for gifted children and the Young Einstein Club are well-received by mothers as they provide programs tailored for gifted students that are often project based, allowing students to further develop their interests. Mothers feel that when their children are learning alongside similarly gifted children, it stimulates a stronger motivation to learn. With such intangible and tangible benefits, it is no surprise that the opportunity for social
interaction with like-minded peers is the main motivation for participants to send their highly gifted children to out-of-school programs. When gifted children participate in suitable out-of-school programs, they are able to socialise and learn with like-minded peers, establish greater commitment and increased motivation to learn, and ultimately achieve better learning outcomes, reduced stress levels, and greater enjoyment at school (Eddles-Hirsch et al., 2010; Lee et al., 2009).

Sociocultural and bioecological theories explain how external elements contribute to a child’s development. Sociocultural theory examines how external environments, such as society, contribute to an individual’s development (Vygotsky, 1978). Bioecological theory explains how individuals’ inner qualities interact with their external environment to influence how they grow and develop (Greenberg, 2014). This study identified how gifted children’s interactions and personal relationships with families, teachers, or peers within their immediate environment (microsystem) help nurture a child’s development. Both theories centre social interaction as a foundation for children’s learning and development, and this is reflected by social opportunities being the main aspiration of mothers who send their highly gifted children to out-of-school programs. Such programs provide another environment for social interactions with like-minded peers to take place.

Mothers also use their gifted children’s attendance at out-of-school programs as opportunities to establish a support network with other parents. Mothers often feel their friends do not understand the struggles they face raising gifted children, so it becomes essential for them to meet other mothers with gifted children so they can share their parenting experiences. Mothers mentioned that programs such as the MENSA Kids Conference allow parents or caregivers to network while their gifted children enjoy activities designed for them. As it is not easy to find information about appropriate
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Parenting for gifted children due to limited research (Pilarinos & Solomon, 2017), parents of gifted children need to rely on their own support networks to gain experience and share their feelings without judgement (Nilles, 2014; Renati et al., 2017). Mothers also need to find their tribe, so they do not feel alone in their parenting journey, and journey and talking to other mothers who share similar experience gives them more confidence when making decisions for their gifted children. If a mother does not understand highly gifted children, or is unable to provide appropriate support, their insecurity can lead to adverse behaviour or other psychological issues (Wellisch & Brown, 2013) and hinder the child’s development. This is why mothers use networking opportunities to gain valuable experience and information from other mothers. Establishing these networks and sources of information leads to better decision making for their children.

5.2.2 Further Cognitive/Academic Development

Mothers feel that their highly gifted children are not sufficiently challenged by the current school curriculum. Even after one or two grade accelerations, mothers feel there is a need for further challenges. When these children find learning is too easy, the feeling of boredom can lead to misbehaviour at school. Although there are different reasons why mothers feel their highly gifted children do not receive adequate academic provisions, one possible reason is that not all teachers trained in Australia receive the appropriate training in gifted education (Jung, 2017 as cited in Channing, 2017). Henderson (2017 as cited in Channing, 2017) explained that there are only three universities in Australia, offering a compulsory topic in gifted education during initial teaching training. Gallagher, Smith, and Merrotsy (2012) demonstrated that parents of gifted students in Queensland primary schools generally support their children’s schools, but schools have not acted to address the needs of their gifted students. Participants’ children experienced different cognitive assessments and showed high
levels of cognitive functioning. Over the years, researchers have pointed out that when gifted children are further away from the average IQ range, the need for greater support increases (Colangelo et al., 2004; Gross, 2004; Ruf, 2009).

Thus, mothers continue to seek opportunities that can provide more challenges for their children. These challenges might not always be in the school curriculum areas. For example, mothers may start sending their child to arts, robotics, and coding programs at a young age. In most circumstances, the decision-making starts with children showing great enthusiasm to learn more in certain areas, leading to mothers seeking to extend children’s learning in those areas. Although half of the participants indicated their highly gifted children have positive school experiences, mothers still seek out-of-school programs to help their children further develop skills and knowledge in their interest areas.

Regardless of their children’s school experiences, mothers agreed that it is important to continue to extend their highly gifted children outside regular school days. With highly gifted children’s commonly shared characteristics such as excellent memory and rapid learning ability, they often need out-of-school programs to make up the necessary provisions that the current school curriculum cannot offer (Coleman et al., 2015; Ruf, 2009).

A significant difference between regular school and out-of-school programs is that some programs are exclusively targeted at gifted children, such as the MENSA Kids Conference or non-curriculum areas such as robotics. When highly gifted children attend these out-of-school programs they are learning about their topics of interest with like-minded peers, so their motivation to learn increases and better results are achieved (Lee et al., 2009). As in sociocultural theory, Vygotsky’s main affirmation is that children’s cognitive development advances via more complex cognitive activities and
social interaction with more skilled mentors or peers (Vygotsky, 1978). In addition, the challenging nature of these programs provides the opportunities needed for these children to extend themselves (Bicknell, 2014).

5.2.3 Psychological Enhancement

When mothers were asked to talk about their highly gifted children, many of them described their children as perfectionists, quick learners, daydreamers, or idealists. While these common characteristics may result in higher achievement, they can also result in various psychological issues such as test anxiety (Scott, 2012). Many mothers are very concerned with their children’s lack of persistence and resilience. While highly gifted children demonstrate high levels of ability, their areas of weakness often go unnoticed. Common weaknesses identified in gifted children include a lack of motivation or persistence, loss of confidence after not meeting expectations, anxiety and depression, or procrastination (Wellisch & Brown, 2013).

Many mothers mentioned that their highly gifted children are perfectionists and give up when they face obstacles or can no longer be ‘perfect’. Neumister and Finch (2006) discovered there are two types of perfectionism: adaptive and maladaptive. While adaptive perfectionism is associated with secure attachment and leads to continuous commitment to achieve, maladaptive perfectionism is associated with insecure attachment and can lead to unrealistically high standards (Wellisch & Brown, 2013). With maladaptive perfectionism, children may show habitual procrastination and frequent destruction leading to a lack of productivity (Neumeister & Finch, 2006). There is no surprise that these psychological weaknesses are concerns for mothers with gifted children. According to the findings presented in Chapter 4, mothers see out-of-school programs as an alternative environment for highly gifted children to overcome their weaknesses. The intellectually challenging nature of out-of-school programs and
the socialisation opportunities they offer provide intangible value for children and allow the development of motivation to learn and continuous commitment to achieve (Burns et al., 2017; Wellisch & Brown, 2013).

5.2.4 Physical Development

Mothers demonstrate concerns that their children do not enjoy physical activities due to their physical weakness in comparison to their academic strength. Therefore, some participants in the study used out-of-school programs to help their children develop gross-motor coordination. As gifted children’s cognitive intellectual development usually progresses faster than their physical growth, physical activities such as sports may not be as intuitive for gifted children (Lutostanski, 2018; Neihart, Pfeiffer, & Cross, 2016). While highly gifted children show advancement compared with age peers, some issues occur as a result. Many mothers express the ambition to raise an all-rounder, so they select programs that can help their children generate interest in sports or other physical activities. Swimming and basketball are among the most common sports selected by mothers. To reduce the impact of asynchronous development, mothers in this study send their highly gifted children to regular or irregular sporting activities. Even though asynchronous development is more evident in twice-exceptional (2E) children, engaging those children in physical and sporting activities was certainly an aspirational factor for their mothers. The ultimate objective is to raise a more rounded child. A subgroup of participants with 2E children also focus on their children’s fine motor skills, as poor fine motor skills are a common characteristic among these children.

5.3 How Do Mothers Choose Out-Of-School Programs for Their Highly Gifted Children?
5.3.1 Advice from Professionals or Fellow Parents

When searching for information about appropriate out-of-school programs, mothers tend to seek out professionals such as psychologists or fellow parents who might have relevant information about suitable programs. Seven of the eight highly gifted children in this study are the first or only child in their family, and mothers expressed their limited knowledge about how to meet the needs of their children. Therefore, once their children are identified as highly gifted through cognitive assessments by psychologists or school counsellors, mothers then seek advice from them regarding additional support. In some cases, specialist teachers such as inclusive education coordinator at schools suggest out-of-school programs for mothers for supports that schools might not be able to offer. For example, Kids College and Extension Education offer programs designed for gifted children during school days, which were often recommended to mothers.

Fellow mothers with highly gifted children provide another source of information about out-of-school programs. Social media and associations for parents with gifted children provide appropriate platforms for mothers to connect with other mothers. Targeted Facebook groups such as Parents of gifted children – Australia allow mothers to connect with other parents of gifted children from all over Australia. Multiple states have associations such as QAGTC that often organise workshops and seminars that allow mothers to meet each other.

Due to the common and unique characteristics of gifted children that challenge their parents (Clark, 2008; Morawska & Sanders, 2009), parents need tailored support. When choosing suitable out-of-school activities or programs, mothers of gifted children feel there is a lack of timely and consistent information available to make informed decisions (Orders, 2012). To make an educated decision about out-of-school programs
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for their highly gifted children, parents tend to seek advice from their parental network first (Nilles, 2014).

5.3.2 Children’s Interests and Preferences

Mothers wanted their highly gifted children to have positive and enjoyable experiences attending suitable out-of-school programs, and often consulted their children about programs that interested them. This is due to the gifted characteristic of strong will, and parents need to involve those children in the decision making process (Clark 2008; Shenfield 2018). In most cases, children explicitly shared their preferences about programs they showed interest in with their mothers. Mothers believed it was important to continue extending their children’s interests and provide further challenges. The range of programs that attract those gifted children ranged from regular sporting and music programs to psychology or forensic programs.

5.4 What Are Mothers’ Perceptions of the Value of Out-of-School Programs?

5.4.1 Children’s Happiness

Mothers’ perceptions of the value of out-of-school programs correlate to their children’s enjoyment. Some mothers view out-of-school programs as supplementary to regular schooling, and some mothers see them as an alternative to schooling. Regardless of their perspective, if their child has positive experiences attending out-of-school programs, then mothers believe the programs have delivered their perceived value. If their children come home and continue to talk about their experiences attending those programs, mothers felt confident about their decisions. In most instances, children’s positive experiences relate to the challenging nature of the activities or opportunities to interact with peers they can relate to (Bicknell, 2014; Burns et al., 2017).

As discussed in Chapter 2, Olszewski-Kubilius and Lee (2004, p. 163) created the “Model of influence and effect of participation in special programs”. The model
argued that the perceived effects of out-of-school programs are both academic and social/affective. Parental perception of value and benefit is the main deciding factor when choosing out-of-school programs for their children (Olszewski-Kubilius & Lee, 2004). If children enjoy their experiences in out-of-school programs, parents believe they benefited from it socially and academically (Olszewski-Kubilius & Lee, 2004). The findings from this study also revealed that social value in meeting and interacting with other like-minded peers is the most significant decisional factor for parents when choosing out-of-school programs for their highly gifted children.

Among different out-of-school programs, programs that cater only for gifted children were highly valued by participating students and their parents as they provide not only appropriate academic or cognitive challenges but also opportunities for gifted children to meet like-minded peers. Therefore, MENSA Kids Conference and Young Einstein Club are among the popular programs for mothers. Mothers felt those programs allow their children to meet other gifted children, and the programs are purposefully designed to challenge those children.

In both sociocultural and bioecological theories, social interaction plays an influential role in a child’s development (Bronfenbrenner, 1979; Vygotsky, 1978). When gifted children can interact with their peers at out-of-school programs, they benefit from greater enjoyment, more effective learning, reduced stress, and higher motivation (Eddles-Hirsch et al., 2010). The findings of this study mirror previous findings, with social interaction with like-minded peers the main aspiration behind sending highly gifted children to out-of-school programs.

5.4.2 Social and Academic Value

As discussed in Chapter 2, Olszewski-Kubilius and Lee (2004, p. 163) created the “Model of influence and effect of participation in special programs”. The model
proposed that the perceived effects of out-of-school programs are both academic and social/affective. Parental perception of value and benefit is the main deciding factor when choosing out-of-school programs for their children (Olszewski-Kubilius & Lee, 2004). If children enjoy their experiences in out-of-school programs, parents believe they benefited from it socially and academically (Olszewski-Kubilius & Lee, 2004). The findings from this study also revealed that social value in meeting and interacting with other like-minded peers is the most significant decisional factor for parents when choosing out-of-school programs for their highly gifted children.

In both sociocultural and bioecological theories, social interaction plays an influential role in a child’s development (Bronfenbrenner, 1979; Vygotsky, 1978). When gifted children can interact with their peers at out-of-school programs, they benefit from greater enjoyment, more effective learning, reduced stress, and higher motivation (Eddles-Hirsch et al., 2010). As with the value of children’s happiness, the main aspiration behind sending highly gifted children to out-of-school programs is social interaction with like-minded peers.

5.5 How Do Mothers Evaluate Out-of-School Programs?

5.5.1 Practical Considerations

After gathering information about suitable out-of-school programs, mothers consider practical elements concerning family circumstances or elements of the programs. While mothers wanted to be supportive of their highly gifted children’s needs, they also needed to be realistic about their financial affordability as out-of-school programs are self-funded activities. Hao and Yeung (2016, p. 836) reported that “family is the largest investor in children. Parents’ expectations for their children’s cognitive and socioemotional development lead parents to invest in development-promoting categories of spending on children”. It follows logically that a survey of 1,000 parents
in Australia found that some families are spending up to a fifth of their household income on academic out-of-school activities to supplement their children’s schooling (Francis, 2018). Mothers in this study were willing to send their highly gifted children to different out-of-school programs if they were suitable for their children. Although participants indicated that education spending ranks highly in their household spending, they could not send their children to all programs available. Mothers need to carefully calculate the cost involved in attending any particular out-of-school programs as one of their decision-making criteria. This is an even more critical factor for mothers with more than one child in the family.

5.5.2 Experience of the Program Facilitators

The findings of this study also revealed that other decision-making considerations are the qualities and elements of out-of-school programs. Unfortunately, not all teachers receive relevant training in gifted education or understand how to deal with the special needs of gifted children. Furthermore, not all out-of-school programs target gifted children, and the trainers or facilitators may not have adequate training in gifted education. Some mothers with twice-exceptional children indicated that some of the program facilitators mistake their children’s behaviour as disruptive or rude instead resulting from classroom boredom. Such negative experiences discouraged those children from attending other out-of-school programs and their mothers needed to expend extra effort when selecting the next programs for their children. The National Research Council (2015) suggested that out-of-school programs should provide an environment that promotes physical and psychological safety. For gifted children to receive intangible benefits such as improved learning skills from attending out-of-school programs, the staff working at those programs need to be caring and competent
Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children

(Greene et al., 2013). If program facilitators are not aware of their different needs, highly gifted children will likely not enjoy the learning experience.

5.6 Summary

The findings from this study have provided some insights into mothers’ values and aspirations concerning their gifted children’s participation in out-of-school programs. As social interaction opportunities were mothers’ demonstrated core aspiration, it is understandable that mothers view out-of-school programs as an alternative environment for this to occur. It is important to note that mothers still look for out-of-school programs for their children to interact and meet other like-minded peers regardless of their positive or negative school experience. The findings confirmed existing research that mothers of gifted children seek social interaction opportunities for their children. As per sociocultural theory, social interaction plays a fundamental role in a child’s learning and development. Interactions occurring in out-of-school programs (microsystem and mesosystem), according to bioecological theory, are an immediate environment where a child’s development can be nurtured.

This chapter has outlined that when making decisions regarding programs, mothers seek advice from professionals or from fellow parents via social networks. Once all relevant information is collected, mothers then consider practical factors such as value for money and the elements of the programs before making a final decision. This study also identified that when children had enjoyable experiences at out-of-school programs, mothers believed those programs had fulfilled their perceived academic and social value.
Chapter Six: Limitations and recommendations

6.1 Limitations of the Study

The nature of qualitative research and the use of interviews presented some limitations to the findings of this study. First, due to the small number of participants, the findings and analysis should not be generalised and can be used as a guide only. The use of purposive sampling may result in some biases, and responses cannot represent the whole population (Creswell, 2008). Second, the geographic location of participants presented difficulties for face to face interviews, and all interviews are conducted online. Third, it is important to note that the definition of giftedness for this study is based on measured cognitive intelligence of IQ 145+ only, and not on other areas of giftedness. Fourth, the inclusion of three twice-exceptional (2E) children in this study may affect the findings. Finally, all participants were self-nominated volunteers who may have been more vocal concerning their experiences and non-social media users may also lack representation in this study because invitations were sent only to parenting groups for gifted children on Facebook.

6.2 Recommendations

Recommendations can be drawn from the findings of this study for stakeholders such as parents and providers of out-of-school programs. The identified values and aspirations of mothers for their highly gifted children’s participation in out-of-school programs can provide guidance for future programs and policies and are outlined in the following sections.

6.2.1 For Out-of-School Program Providers

The implication for organisers who provide out-of-school programs is the need to incorporate more opportunities for gifted children to interact with like-minded peers. Group based activities or designated social time are suggested.
It is also important to note that activities should not be based on children’s chronological age, but rather their cognitive age. Furthermore, flexibility with entry requirements such as a greater focus on ability over age is recommended, as some highly gifted children may have excelled in the skills required for the activity but not be admitted due to age cut-off. For out-of-school program providers, it is important to acknowledge the unique characteristics of highly gifted children and receive proper training in their needs. For out-of-school programs that exclusively target gifted students, it is important for facilitators to prepare rigorous and challenging content. In addition to learning activities, providers of out-of-school programs should encourage social interactions among participating children.

6.2.2 For Mothers

It is recommended that mothers of highly gifted children conduct research on out-of-school programs available and consult experienced mothers for feedback in order to make informed decisions. A combination of general programs for all children and programs for gifted children would enhance children’s experiences and provide greater opportunities for social interactions. If there are suitable programs that run during regular school days, be prepared to communicate with schools to negotiate attendance.

As mothers of highly gifted children use out-of-school programs to supplement or replace regular school learning, it is important that schools acknowledge the voice of these mothers. Schools are encouraged to allow flexibility for highly gifted children to attend suitable out-of-school programs during school days, especially if there are insufficient resources to provide for these children in the regular curriculum. This is even more essential if schools have limited numbers of highly gifted children or are unable to provide appropriate support for them. This flexibility is required under policy
guidelines set by ACARA (n.d) for schools to cater for the learning needs for gifted children.

6.3 Directions for Future Research

There are currently limited studies about parenting gifted children, and they vary across age groups and cultural contexts (Jolly & Matthews, 2012; Pilarinos & Solomon, 2017). There is a strong need to explore the parental experience and the perspectives of parents of highly gifted children (Coleman et al., 2007; Jolly & Matthews, 2012). By recognising the voices of these parents, their concerns and experiences with gifted children can be shared with other stakeholders. This will benefit gifted children’s overall development and help children turn their giftedness into achievements. Future research should consider what assistance parents need from schools, policymakers, and other stakeholders in meeting the needs of their highly gifted children.

To extend the scope of this study, future research could adopt a wider definition of giftedness to include a more diverse gifted population and a wider age group to gather more data. This would provide a broader understanding of the different aspirations mothers have for their gifted children. The results would be more representative of the diverse values and aspirations of parents (mothers) of gifted children. Further research could aim to develop a more comprehensive out-of-school program targeting gifted children; this could be achieved by responding to the aspirations and feedback of parents. The findings from this study could provide guidelines for the design of a broader research base. More research studies focusing on the perspectives of parents could help stakeholders assist in the parenting of gifted children and understanding the needs of those children.

The findings of this study have represented the voice of mothers about their aspirations for their highly gifted children. They identify some of the expectations that
mothers have of the providers of out-of-school programs. The core aspiration identified, of opportunities for social interaction with like-minded peers, also matches the central element of both bioecological and sociocultural theories by focusing on social interaction with the external environment as foundational to a child’s development. This study provides evidence that mothers view a child’s social interaction with like-minded peers as a developmental priority. This finding should encourage all stakeholders to consider creating opportunities for gifted children to gather in learning environments for better motivation, behaviour, and learning outcomes. The aspiration of social interactions with like-minded peers for their highly gifted children needs to be promoted explicitly and with reference to the benefits indicated by both bioecological and sociocultural theories, so that stakeholders can critically evaluate their current activities or programs to make appropriate modifications for highly gifted children. Change might not happen immediately as it requires thoughtful planning, but there is a demonstrated need for all stakeholders to hear the voice of parents in this regard.
Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children

References


Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children


Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children


Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children


Retrieved February 2, 2019, from http://www.nova.edu/ssss/QR/QR19/owen52.pdf


Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children

Scottsdale, AZ: Great Potential Press.


education of gifted and talented students. Retrieved from


Appendix A  Interview Protocol

Interview Protocol

Project: The aspirations of parents with highly intellectual gifted upper primary children of their participation in out-of-school programs.

Date: Time of Interview:

Place:

Interviewer: Interviewee:

Information to share with interviewee:

a) Purpose of the study
b) How data would be collected
c) How data is being used
d) How interview being conducted
e) Provide information and consent form

Icebreaker:

1. Please tell me about your highly gifted child.
2. Your general feelings about out-of-school programs for highly gifted children
3. Most recent experience with out-of-school programs
5. Future out-of-school programs they might consider.

Interview questions:

1. What types of out-of-school programs have you engaged your highly gifted child in?
2. Why do you engage your highly gifted child in those out-of-school programs?
3. What motivates you to send your highly gifted children to out-of-school programs?
4. What is the main purpose for sending your highly gifted children to out-of-school programs?
5. How do you gather information on out-of-school programs?
6. What are the key criteria do you consider when choosing out-of-school programs for their highly gifted children?
7. When selecting out-of-school programs for your children to participate in, what factors do you consider important?
8. How much contribution does your child play in the decision making?
9. What benefits do you hope to receive from out-of-school programs?
10. How do you value about participation in the out-of-school programs you have chosen for your highly gifted child?
11. After attending out-of-school programs, how do your children benefit from the experience?

(Thank individual participant for their time and corporation in this interview. Assure participants of the confidentiality of the responses.)
Appendix B  Information form

Information form

(GU Ref No: 2018/849)

Griffith Researchers
Chief investigator: Professor Donna Pendergast (d.pendergast@griffith.edu.au)
Supervisors: Professor Donna Pendergast (d.pendergast@griffith.edu.au)
    Professor Peter Grootenboer (p.grootenboer@griffith.edu.au)
    Dr Michelle Ronksley-Pavia (m.ronksley-pavia@griffith.edu.au)
Student researcher: Chun-Yu Cherry Huang (chun-yucherry.huang@griffithuni.edu.au)

Why is the research being conducted?

Parents of gifted children face challenges owing to the unique learning needs of their gifted child; however, their voices have received little attention from scholars (Clark, 2008; Jolly & Matthews, 2012). Despite the Australian Government having set policy guidelines for schools to cater for the learning needs of gifted children (Australian Curriculum, Assessment and Reporting Authority, n.d), for various reasons, schools are not always able to include appropriate academic provisions for the learning needs of gifted children (Straker, 2010). Some studies have found that parents are seeking out-of-school programs to cater for their gifted children’s academic and social needs that regular school programs do not fulfil (Garvis, 2014; Olszewski-Kunilius & Lee, 2004; Straker, 2010; Welsh, 2015). However, the aspirations of parents send their gifted child to participate in out-of-school programs remains uncertain. This study aims to explore the aspirations of parents with highly intellectual gifted upper primary children of their participation in out-of-school programs.

What you will be asked to do

The data collection process will take place in three stages. At first stage, background information of each highly gifted child and their parents will be collected. Background information including demographic data, out-of-school
programs attended, information on the nature of those out-of-school programs and future out-of-school programs they will attend.

At second stage, six one and half-hour interviews will take place at mutually convenient place or via Skype. A set of semi-structured open-ended questions will be used in the interviews to collect data and to answer the research question and sub questions. All interviews are designed to answer the research question “What are the aspirations of parents of highly gifted upper-primary children for their participation in out-of-school gifted programs?”

There will be 11 open ended questions from the following 4 sub-research questions.

- Why do parents send their highly gifted children to out-of-school programs?
- How do parents choose out-of-school programs for their highly gifted children?
- What are parents’ perceptions of the value of out-of-school programs?
- How do parents evaluate out-of-school programs?

Not all participants will be involved in the final stage. At final stage, you will only be contacted for a second interview if further clarifications are required.

The basis by which participants will be selected or screened

Parents will be selected from parents with a highly gifted upper primary (grades 4-6 or age 10-12) child (IQ 145+) from WSIC-V or SB-V who have participated or planning to participate in out-of-school programs.

You will be required to provide your child’s formal cognitive assessment report and evidence of current enrolment in years 4-6 at an Australian school.

The expected benefits of the research

Current studies on parenting gifted children are limited and vary in age groups and cultural contexts (Jolly & Matthews, 2012). With limited current research on parenting highly gifted children, there is a strong need to explore the parental experience and the voices of parents of highly gifted children (Coleman et al., 2007; Jolly & Matthews, 2012). This study will focus on their voices by exploring the
Mothers’ Aspirations: Social Interaction Opportunities for Gifted Children

aspirations for their highly gifted upper primary children and their participation in out-of-school programs. The findings would provide another perspectives to parents’ voice.

The study findings will also provide valuable information to stakeholder such as schools to consider appropriate extracurricular activities for those highly gifted children. Current providers of out-of-school programs may also use the findings to make modification on their programs.

Risks to you

Risks to participants are negligible. You will not be asked questions beyond your experiences. The identity of participants in the interviews will be known only by the research team, and the researcher conducting the interviews. Anything that you discuss during this time will be confidential. Prior to the interviews, you will be advised that your interview will be digitally recorded.

Your confidentiality

Your confidentiality is highly valued. All data collected will be de-identified upon completion of the data collection stage. In the interviews, your voice will be digitally recorded for transcription purposes. The audio file will be deleted once the transcript of dialogue has been created and checked. Data retention for this project is five years.

Interview recordings and transcripts will only be accessible by the research team. All data will be stored in secure locations with password protection access or in locked offices in locked filing cabinets. While some ancillary identifiable data may be collected (e.g., your first name), participants will not be identifiable in any reporting. After data collection has been completed all data will be de-identified.

Privacy statement

The conduct of this research involves the collection, access and/or use of your identified personal information. The information collected is confidential and will not be disclosed to third parties without your consent, except to meet government, legal or other
regulatory authority requirements. A de-identified copy of this data may be used for other research purposes. However, your anonymity will at all times be safeguarded. For further information consult the University's Privacy Plan at http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan or telephone (07) 3735 4375.

Your participation is voluntary

Your participation in this project is completely voluntary. You have the right to withdraw at any time without penalty or comment. You do not need to answer every question unless you wish to do so. You are free to refuse to complete any activity without having to justify that decision.

Access to research results

This research forms a component of the student's academic program – Master of Education and Professional Studies Research. Research results will be reported in a form of academic thesis and may also be disseminated via journal articles and / or conference presentations.

A summary of research results will be made available after the study. If you wish to receive the summary of research results, please indicate your preference by email (chun-yucherry.huang@griffithuni.edu.au)

Questions / further information

If you have any questions regarding this research, please contact student researcher:

Chun-Yu Cherry Huang
Mobile: 0402010329
Email: chun-yucherry.huang@griffithuni.edu.au

Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research. If you have any concerns or complaints about the ethical conduct of this research project, you are encouraged to contact the Manager, Research Ethics on 07 3735 4375 or research-ethics@griffith.edu.au.
Appendix C  Adult consent form

Adult Consent Form

Griffith Research Team

(GU Ref No: 2018/849)

Chief investigator: Professor Donna Pendergast (d.pendergast@griffith.edu.au)
Supervisors: Professor Peter Grootenboer (p.grootenboer@griffith.edu.au)
  Dr Michelle Ronksley-Pavia (m.ronksley-pavia@griffith.edu.au)
Student researcher: Chun-Yu Cherry Huang (chun-yucherry.huang@griffithuni.edu.au)

By signing below, I confirm that I have read and understood the information sheet and in particular have noted that:

- I understand that my involvement in this research will include a face to face or online (e.g., Skype interview) (approximately 60 minutes);
- I understand that the interview will be digitally recorded;
- I understand that some additional identifiable data (e.g., my first name) may be collected which will be de-identified following completion of transcription of the interview;
- I have had any questions answered to my satisfaction;
- I understand that risks to participants are negligible;
- I understand that the benefits of the research include but not limited to: contribution to current literature on parents of gifted children, provide perspective on parents’ voice.
- I understand that my participation in this research is voluntary;
- I understand that if I have any additional questions I can contact the Griffith University research team (contact details above);
- I understand that I am free to withdraw at any time, without explanation or penalty;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on (07) 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project; and,
- ☐ I agree to participate in the project.
- ☐ I agree to inclusion of my anonymised personal information in reporting of the results from this research.

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td></td>
</tr>
</tbody>
</table>
Appendix D  Invitation letter to potential participants

Invitation to participate in academic research (GU Ref No: 2018/849)

Dear {name},

Parents of highly gifted (IQ145+) upper primary children study

My name is Chun-Yu Cherry Huang, a research student from Griffith University. This research forms a component of the student's academic program – Master of Education and Professional Studies Research. Research results will be reported in a form of academic thesis and may also be disseminated via journal articles and / or conference presentations.

As a parent of a gifted child, I am very interested the voice of parents of gifted children.

Jolly and Matthews (2012, p260) claimed, “Parents face unique challenges in raising gifted children”. Scholars have advised that there is a strong need to conduct studies with a focus on the voices of the parents of gifted children to understand their experience (Coleman, Guo, & Dabbs, 2007; Jolly & Matthews, 2012). The focus of this study is the voice of parents with highly intellectual gifted upper-primary children. The aim is to explore the various aspirations of parents when they send their children to participate in out-of-school programs in Australia to allow parents’ voice to be heard and understood.

Your parenting journey is unique, and this study will offer an opportunity for you to share your experience and help others to understand those gifted children. You will be involved in three stages of data collection process.

At first stage, background information of each highly gifted child and their parents will be collected. Background information including demographic data, out-of-school programs attended, information on the nature of those out-of-school programs and future out-of-school programs they will attend.

At second stage, six one and half-hour interviews will take place at mutually convenient place or via Skype. A set of semi-structured open-ended questions will be used in the interviews to collect data and to answer the research question and sub
questions. All interviews are designed to answer the research question “What are the aspirations of parents of highly gifted upper-primary children for their participation in out-of-school gifted programs?”

Not all participants will be involved in the final stage. At final stage, you will only be contacted for a second interview if further clarifications are required. If your child fit the following selection criteria and you will willing to participate in this study, please contact me.

- Your child is officially tested with an IQ 145+ (WSIC-V or SB-5). A formal report from cognitive assessment need to be provided.
- Your child is currently enrolled in years 4, 5, 6 at an Australian school

My contact details as follows:
Student researcher: Cherry Huang
Mobile: 0402010329
Email: chun-yucherry.huang@griffithuni.edu.au
Thank you.

Yours sincerely,
Cherry Huang
Appendix E  Ethics Approval

GRIFFITH UNIVERSITY HUMAN RESEARCH ETHICS REVIEW

Dear Prof Donna Pendergast

I write further to the additional information provided in relation to the provisional approval granted to your application for ethical clearance for your project "Parents with highly intellectual gifted upper primary children" (GU Ref No: 2018/849).

This is to confirm that this response has addressed the comments and concerns of the HREC.

The ethics reviewers resolved to grant your application a clearance status of "Fully Approved".

Consequently, you are authorised to immediately commence this research on this basis.

Regards

Kim Madison | Human Research Ethics

Office for Research
Griffith University  | Nathan  | QLD 4111  | Level 0, Bray Centre
T +61 7 373 58043  | email k.madison@griffith.edu.au
### Appendix F  Coding Table

<table>
<thead>
<tr>
<th>Codes</th>
<th>Grouping codes</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gifted child has positive school experience or love learning at school.</td>
<td>Gifted child enjoys school life</td>
</tr>
<tr>
<td>2</td>
<td>Gifted child prefers older peers.</td>
<td>Gifted child enjoys social life outside school and year level.</td>
</tr>
<tr>
<td>3</td>
<td>Gifted child makes more friends in out-of-school programs.</td>
<td>Gifted child does not like learning at school</td>
</tr>
<tr>
<td>4</td>
<td>Gifted child does not receive enough learning at school.</td>
<td>Gifted child participates in regular out-of-school programs.</td>
</tr>
<tr>
<td>5</td>
<td>Gifted child does not enjoy school.</td>
<td>Gifted child participates in irregular out-of-school programs.</td>
</tr>
<tr>
<td>6</td>
<td>Gifted child participated in regular sporting programs outside school.</td>
<td>Gifted child participated in irregular out-of-school programs.</td>
</tr>
<tr>
<td>7</td>
<td>Gifted child participated in performing arts programs outside school.</td>
<td>Parents send their children to out-of-school programs for cognitive development</td>
</tr>
<tr>
<td>8</td>
<td>Gifted child participated in irregular STEM Programs.</td>
<td>Parents send their children to out-of-school programs for physical development.</td>
</tr>
<tr>
<td>9</td>
<td>Gifted child participated in out-of-school programs targeting gifted children.</td>
<td>Parents send their children to out-of-school programs for social benefits.</td>
</tr>
<tr>
<td>10</td>
<td>Parents sent their gifted child to out-of-school programs to supplement learning from regular school.</td>
<td>Parents’ initial motivation when sending gifted children to out-of-school programs. (Why do parents send their highly gifted children to out-of-school programs?)</td>
</tr>
<tr>
<td>11</td>
<td>Parents send their gifted child to out-of-school programs to stimulate further learning/thinking.</td>
<td>Parents send their children to out-of-school programs for psychological enhancement</td>
</tr>
<tr>
<td>12</td>
<td>Parents send their gifted child to out-of-school programs to cater for their skill development in their interested areas.</td>
<td>Parents send their children to out-of-school programs for mental health.</td>
</tr>
<tr>
<td>13</td>
<td>Parents send their gifted child to out-of-school programs to develop for physical development and health.</td>
<td>Parents send their children to out-of-school programs for social benefits.</td>
</tr>
<tr>
<td>14</td>
<td>Parents send their gifted child to out-of-school programs to cater for their social needs (same interests or other gifted children).</td>
<td>Parents send their children to out-of-school programs for mental health.</td>
</tr>
<tr>
<td>15</td>
<td>Parents send their gifted child to out-of-school programs to develop stronger mental ability (persistence and resilience).</td>
<td>Parents send their children to out-of-school programs for social benefits.</td>
</tr>
<tr>
<td>16</td>
<td>Parents send their gifted child to out-of-school programs to gain self-confidence.</td>
<td>Parents send their children to out-of-school programs for psychological enhancement</td>
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<tr>
<td>17</td>
<td>Parents send their gifted child to out-of-school programs to gain motivation for learning.</td>
<td>Parents send their children to out-of-school programs for mental health.</td>
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<td></td>
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</tr>
<tr>
<td>18</td>
<td>Parents send their gifted child to out-of-school programs as reward for better behaviour and cope with school life. (self-concept)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Decision on participation is based on gifted child’s interests.</td>
<td>Decisions are made around gifted child’s preferences.</td>
</tr>
<tr>
<td>20</td>
<td>Gifted child agree to participate.*</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Location of the out-of-school programs.</td>
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<tr>
<td>22</td>
<td>Costs for those out-of-school programs.</td>
<td></td>
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<tr>
<td>23</td>
<td>Teacher/trainer of those out-of-school programs are trained with gifted education.</td>
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</tr>
<tr>
<td>24</td>
<td>The program targets gifted children only.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Information on out-of-school programs are recommendation from school counsellors/teachers.</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Information on out-of-school programs are recommendation from psychologists.</td>
<td></td>
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<tr>
<td>27</td>
<td>Information on out-of-school programs are recommendation from gifted parents’ associations (MENSA, Facebook group etc)</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Parents conduct own research on information of out-of-school programs.</td>
<td></td>
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<tr>
<td>29</td>
<td>Alternative from school for highly gifted child’s academic development.</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Enrichment for highly gifted child’s interests.</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Social benefit (friendship, peer acceptance.)</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Happiness/enjoyment.</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Workshops that cater for a particular age group and contents are too easy for those highly gifted.</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Teachers/trainers do not understand gifted children.</td>
<td></td>
</tr>
</tbody>
</table>

Factors/criteria considered when parents deciding on out-of-school programs to participate. (How do parents evaluate out-of-school programs?)

Parents gather information on out-of-school programs through personal network and effort.

Parents gather information on out-of-school programs via professionals.

How do you gather information on out-of-school programs? (How do parents choose out-of-school programs for their highly gifted children?)

Academic benefit

Social benefit

How do parents value their child’s participations in out-of-school programs? (What are parents’ perceptions of the value of out-of-school programs?)

When out-of-school programs don’t meet parents’ expectations