MONASH University

A Grounded Theory Study on Teachers Who Inspire Gifted and Highly Able Students

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Abstract

This qualitative research of teachers who inspire gifted and highly able students in secondary schools in Victoria, Australia, aimed to comprehend how teachers inspire these students, to understand the meaning of their interaction, and to develop a theory grounded in the participants' experience. As it was not possible to find a theory or model in the existing literature, which explained the studied phenomenon, constructivist grounded theory was used as the research design. Using the studies conducted by Thrash and Elliot (2003, 2004) to validate the concept of inspiration as a psychological construct, this research invited students to nominate teachers who had a significant impact on their academic life.

Participants were from programs for gifted and highly able students in three different secondary schools in Victoria, two government high schools and one independent school. These secondary schools had different approaches regarding gifted educational provision. One secondary school had a Select Entry Accelerated Learning (SEAL) program, one was a select entry high school, and one school provided an extension and International Baccalaureate program. From these contexts, ninety-one gifted and highly able students from years 9-11 consented to be in the study. These secondary students were invited to nominate up to three teachers, who they considered inspiring or influential in their academic lives, through an online questionnaire. Students were invited to respond further, to five open-ended questions, in order to explain their nominations. Participating students made 131 nominations. Some teachers were duplicated, resulting in 66 different teachers. Of those teachers, 13 received the most frequent nominations, and 11 accepted to participate in this study. These teachers were invited to participate in a follow-up interview and a classroom observation session, using theoretical sampling. Memos and a methodological journal were kept throughout the research process. Data were collected between August 2017 and March 2018.

The process of theory development was conducted through constant comparative method, and memos were organised to facilitate this process. Three interrelated categories emerged: *Being a knowledgeable and passionate teacher, Creating an academically safe learning environment,* and *Teaching beyond and above the recommended curriculum.* Additionally, the core process emerged as a theoretical connection and interpretation for the three main categories, providing analytical insights. The theory conceptualised as *Opening New Possibilities: Teachers who Inspire Gifted and Highly Able Students*, provided interpretation and understanding to the participants' experiences. The theory was explained in three phases *Expanding students' knowledge and understanding, Fostering positive attitudes,* and *Encouraging students to take action.* These phases established clear links between the three main categories. There were also contextual conditions which were considered.

These findings provided important evidence to understand what makes a teacher inspiring from the perspective of secondary gifted and highly able students in Victoria, Australia. It is envisaged that the findings from this study will make a significant contribution to teachers, school administrators and educational leaders, school policymakers, educational psychologists and for anyone else who is working (or who will be working) in the field of gifted education. Limitations and recommendations for future research were also discussed.

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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Publications during Enrolment

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Conference Presentations

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Cornejo, C., & Kronborg, L. (2018, August). *What makes a teacher inspiring? The gifted and highly able student's voice.* Paper presented at the meeting of the European Council for High Ability, Dublin, Ireland.

Cornejo, C., & Kronborg, L. (2018, September). *Conducting a constructivist grounded theory study: Challenges, decisions and reflections.* Paper presented at the meeting of the Monash Education Research Community, Melbourne, Australia.

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List of Abbreviations

AAEGT   Australian Association for the Education of the Gifted and Talented

DMGT   Differentiated Model of Giftedness and Talent

DMNA   Developmental Model for Natural Abilities

EMTD   Expanded Model of Talent Development

SEAL   Select Entry Accelerated Learning

VAGTC   Victorian Association for Gifted and Talented Children

WCGTC   World Council for Gifted and Talented Children

ZPD   Zone of Proximal Development

Chapter 1: Introduction and Context

Chapter Overview

This chapter provides relevant information to understand the impetus for this qualitative doctoral research. It begins with a description of the main constructs used in this study, as well as providing the background and context for the research. This chapter then presents the research design, purpose, aims, research questions, and insights into the significance of the study. The second part of this chapter provides a retrospective reflection on the early theoretical considerations developed by the researcher, declaring the initial theoretical framework and literature review. The position of the researcher is presented to understand the lenses through which the research was conducted. Finally, an overview of the thesis structure is provided.

Main Concepts and Base Ideas

According to the model developed by Gagné (1985), which is called Differentiated Model of Giftedness and Talent (DMGT), in its more recent revision, giftedness is defined as "the possession and use of biologically anchored and informally developed outstanding natural abilities or aptitudes (e.g., gifts), in at least one ability domain, to a degree that places an individual at least among the top 10% of age peers" (Gagné, 2018, p. 165). Talent is referred to as "the outstanding mastery of systematically developed competencies (knowledge and skills) in at least one field of human activity to a degree that places an individual at least among the top 10% of learning peers" (Gagné, 2018, p. 165). This model underpins gifted education in Australia (Kronborg & Plunkett, 2012). However, there is no consensus among researchers on the concepts of giftedness and talent that are considered, as researchers come from different fields of study and have different engagement with these constructs (Subotnik,

Olszewski-Kubilius, & Worrell, 2011; Wolf & Chessor, 2011). In this study, high ability is defined as "well-above-average cognitive ability, depending in various degrees on biological, physical, social, and cultural determinants, which are prerequisites for accomplishments in different cognitive domains" (Rinderman, Ceci, & Williams, 2013, p. 47).

Gifted students are generally cognitively and affectively more advanced than their peers (Knopfelmacher & Kronborg, 2003). Therefore, these students have different educational needs (Plunkett & Kronborg, 2011), such as differentiated learning environments with adapted curriculum, teaching approaches, and opportunities to work with like-minded peers (Chichekian & Shore, 2013; Kalbfleisch, 2013; Kronborg & Plunkett, 2006; Wiley & Hébert, 2013). In 1992, Lovecky published an article, which described five social and emotional traits of giftedness in children: divergent thinking ability (holistic understanding), excitability (emotional reactivity and high energy levels), sensitivity (deep sense of identification with others), perceptiveness (view and understanding of numerous aspects of a situation simultaneously), and entelechy (strong motivation in the pursuit of their goals). Silverman (1993) detailed some intellectual characteristics of gifted students such as curiosity, facility with abstraction, passion for learning, divergent thinking, and complex thought processes, which required differentiated learning experiences. Additionally, she described personality characteristics, including insightfulness, the need to understand, the need for mental stimulation, perfectionism, and sense of humour (Silverman, 1993). More recently, Shavinina (2009a) stated that gifted learners possess different ways of understanding and interpreting. There is research evidence demonstrating that gifted students have a capacity for faster learning at a deeper level of complexity (e.g., Hoogeveen, van Hell, & Verhoeven, 2012; Kronborg & Plunkett, 2015; Rogers, 2007; Start, 1995; VanTassel-Baska, 1998). These students display a preference for complex tasks, which include novelty, multiple steps, open guidelines, and no predetermined answers (Chichekian & Shore, 2013;

Shore, Rejskind, & Kanevsky, 2003). In addition, gifted learners tend to more frequently use effective metacognitive strategies to monitor and evaluate their cognitive processes (Chichekian & Shore, 2013). Some characteristics are influenced by the contextual conditions, such as the learning environment. For instance, some gifted students prefer to learn alone when they do not feel supported by the environment (French, Walkert, & Shore, 2011) and to work with their peers when the environment is stimulating and supporting the improvement of their performance (Chichekian & Shore, 2013; Schapiro, Schneider, Shore, Margison, & Udvari, 2009).

Considering the mentioned features of gifted learners, different researchers have studied the characteristics that teachers of the gifted require to be effective in their role (e.g., Chan, 2001, 2011; Cheung & Hui, 2011; Graffam, 2006; Mills, 2003; Porath, 2009; Rosemarin, 2014). The critical role of teachers of the gifted has been evidenced in diverse studies, which frequently concluded that gifted students had at least one teacher who had a meaningful impact on their lives by acting as role models, being encouraging, influential, and inspiring (Kronborg, 2010; Shavinina, 2009b). In this regard, Thrash and Elliot (2003) argued, "we are inspired when a mentor or role model reveals new possibilities that we would not have recognised on our own" (p. 871).

In the studies conducted by Thrash and Elliot (2003, 2004) inspiration was defined as "a breathing in or infusion of some idea, purpose, etc. into the mind; the suggestion, awakening or creation of some feeling or impulse, especially of an exalted kind" (Simpson & Weiner, 1989, p. 1036). Thrash and Elliot (2003) conducted several studies to differentiate and validate the concept of inspiration as a psychological construct. They argued that inspiration has a tripartite conceptualisation: transcendence, evocation, and motivation. Transcendence means gaining "awareness of new or better possibilities" (Thrash, Moldovan, Oleynick, & Maruskin, 2014, p. 496). Evocation, "rather than initiated directly through an act

of will or arising without apparent cause" (Thrash & Elliot, 2003, p. 871), manifests when "one is inspired by something in particular, and therefore, one does not attribute to oneself responsibility for becoming inspired, at least not full or direct responsibility" (Thrash et al., 2014, p. 496). Finally, motivation occurs when "one feels compelled to bring one's new idea or vision into fruition" (Thrash et al., 2014, p. 497).

Additionally, inspiration has two components in the process: being inspired *by* and being inspired *to*. The first refers "to being awoken to the (perceived) intrinsic value of an elicitor object (e.g., a person, action, or scene)" (Thrash et al., 2014, p. 497), which has been related to transcendence and evocation (Thrash, Elliot, Maruskin, & Cassidy, 2010). Being inspiring *to* "refers to the motivation to actualize or extend the inspiring qualities exemplified in the evocative object" (Thrash et al., 2014, p. 497), which is related to motivation (Thrash et al., 2010).

That teachers might have the ability to inspire their students was one of the main motivations to conduct this study. Teachers have an important impact on their gifted students, more than with other students (Croft, 2003). Knopfelmacher and Kronborg (2003) emphasised the role of effective teachers in gifted education by identifying their characteristics, competencies, and teaching strategies. They argued that teachers can model some behaviours to their gifted and talented students, such as creative behaviours, higher-order thinking processes, and leadership capacity (Knopfelmacher & Kronborg, 2003). The consequences of not adequately providing for these students could carry negative effects for them, for society, and for the future.

Study Background and Context

A significant amount of research has been undertaken on the topic of giftedness and talent, due to exceptional performance and performers are intriguing for researchers and

practitioners (Robinson & Clinkenbeard, 2008; Subotnik et al., 2011). A significant amount of interest in gifted education emerged as a result of the *space race*—specifically, the launching of the Russian satellite *Sputnik* in 1957—because meaningful educational reforms were introduced as a result (Folsom, 2005, 2006; Subotnik et al., 2011). Additionally, the *Marland Report* on gifted education was published in 1972, which outlined the various characteristics, needs, and challenges of gifted students in US schools (Jolly & Robins, 2016; Marland, 1972). An important event for the field of gifted education occurred in 1975 when Henry Collins, the director of the National Association for Gifted Children in the UK, convened an international conference in London, which led to a worldwide organisation known today as the World Council for Gifted and Talented Children (World Council for Gifted and Talented Children [WCGTC], 2018).

In Australia,[1] each state has its own gifted education policy, which can change depending on the elected state government (L. Kronborg, personal communication, October 4, 2016). Although there is no national policy (Frantz & McClarty, 2016; Rowley, 2012), Australia has a national association, the Australian Association for the Education of the Gifted and Talented (AAEGT), which was established on 18 May, 1985 (AAEGT, 2016). In 1992, the AAEGT published its first journal, *Australasian Journal of Gifted Education* (Vialle & Geake, 2002). In addition to this, each state has its own association (see Table 1.1):

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[1] The Commonwealth of Australia was established as a constitutional monarchy. Australia is an island continent and the world's sixth largest country. The country is approximately 4,000 km from east to west and 3,200 km from north to south, with a coastline 36,735 km long. There are six states in Australia (each state has its own state constitution) and two mainland territories (Australian Government, 2016). The estimated population of Australia in September 2018 was 25.101.900 (Australian Bureau of Statistics, 2019).

Table 1.1

Australian Gifted and Talented State and Territory Associations

State	Association
Western Australia	The Gifted and Talented Children's Association of Western Australia (GATCA WA), and Gifted Western Australia
Northern Territory	Northern Territory Association for the Education of the Gifted and Talented (NTAEGT)
South Australia	Gifted and Talented Children's Association for South Australia (GTCASA)
Queensland	Queensland Association for Gifted and Talented Children (QAGTC)
New South Wales	Gifted Family Support Group Inc. (GFSG Inc.)
Victoria	Victorian Association for Gifted and Talented Children (VAGTC), and the Association for Gifted and Talented Education Victoria (AGATEVic)
Tasmania	Tasmanian Association for the Gifted (TAG)

Source: AAEGT website and state association websites.

Australia has four delegates at the WCGTC— Margaret Plunkett,[2] Michelle Ronksley-Pavia[3], Carmel Meehan,[4] and Susan Knopfelmacher[5]—with participation in the Executive Committee through Leonie Kronborg[6] as Vice President (WCGTC, 2018). Despite this, the concept of giftedness in Australia still faces resistance, usually by being associated with the idea of elitism (Kronborg, 2002).

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[2] Associate Professor and the Associate Dean (Learning and Teaching) in the Faculty of Education and Arts at Federation University, Victoria, Australia.
[3] GIER Research Fellow and Lecturer at Griffith University in the School of Education and Professional Studies, lecturing in undergraduate and postgraduate primary and secondary education courses.
[4] Vice President of VAGTC.
[5] Alternate delegate. Head of Gifted Education and Extension Programs, Presbyterian Ladies' College, Victoria, Australia.
[6] Senior Lecturer and Coordinator of Postgraduate Studies in Gifted Education in the Faculty of Education, Monash University, Victoria, Australia

Victoria, the state in which this research was conducted displayed early interest in gifted education, that can be observed through the establishment of the VAGTC in 1978 (Cahill, 1990, as cited in VAGTC, 2016). Victoria was one of the first states to lead the development of policies for gifted education, offering Master's in Education programs at Monash University and the University of Melbourne in 1981. In 1996, the Faculty of Education at Monash University offered the first certificate in gifted education, which later became the Postgraduate Certificate in Gifted Education (Kronborg, 2002).

In the Parliament of Victoria's (2012) Inquiry into the education of gifted and talented students, parents' experiences were presented as evidence, which recognised their role in the identification of signs of giftedness in their children. In the same document, the Committee acknowledged the role of teachers as important actors in the field, and noted that parents and teachers required more resources to work effectively with their children and students (Parliament of Victoria, 2012).

Victoria's Department of Education and Early Childhood Development (State of Victoria, 2014) published a gifted education policy document called *Aiming High: A Strategy for Gifted and Talented Children and Young People 2014–2019, which is the latest policy for gifted education in Victoria.* Within this document, the Minister for Education, the Minister for Children and Early Childhood Development, and the Minister for Higher Education and Skills, declared in a joint opening statement that they "will provide better opportunities for our gifted and talented children and young people, and greater support for their families, early childhood professionals, teachers, and educational leaders" (State of Victoria, 2014, p. 5). This document presented four priorities to be put into action: engaging families and the community; extending and supporting gifted and talented children and young people; resources and capacity-building for early childhood professionals, teachers and leaders; and building the evidence base and evaluation of programs (State of Victoria, 2014).

The academic opportunities offered for gifted students in Victorian government secondary schools include four select entry high schools, four specialist secondary schools—maths, science, arts, and sports—and 38 accredited Select Entry Accelerated Learning (SEAL) programs—in 25 metropolitan and 13 regional schools, accredited by The Academy of Accredited SEAL Schools (TAASS) (Kronborg, 2018a; State of Victoria, 2014; TAASS, 2017). Various independent and Catholic schools in Victoria offer programs that provide for the educational needs of gifted and talented students (Kronborg & Cornejo-Araya, 2018; Parliament of Victoria, 2012; Walsh & Jolly, 2018). Additionally, there are limited options in Victoria for teacher development and professional learning for pre-service and in-service teachers, and at the postgraduate level (e.g., at Monash University).

Australia and Victoria still have work to be done in this field, especially in the provision of learning opportunities for teachers (Kronborg & Cornejo-Araya, 2018). Further research in this context can provide education authorities, principals, teachers, and families with more ideas to improve the provisions and services that could be implemented to help gifted and highly able students develop their talents.

The Research: Introducing the Study

Study design

Constructivist grounded theory was the research design used to gain understanding of participants' meaning and understanding of teachers who inspire gifted and highly able students. Underpinned by constructivism, constructivist grounded theory is an appropriate approach for qualitative studies that aim to develop a theory to understand the processes being investigated (Charmaz, 2014; Creswell, 2016). Further information regarding the study design is presented in Chapter 2.

Purpose

The purpose of this qualitative study was to understand how teachers inspired their gifted and highly able students in secondary schools in Victoria, Australia, that provided for gifted and highly able learners.

Aims

The research aims of this study were to:

1. Comprehend how teachers can inspire their gifted and highly able students.

2. Understand the meaning of the interaction between teachers identified as inspiring and their gifted and highly able students, as well as implications they have for these students.

3. Develop a comprehensive theory grounded in participants' experiences.

Research questions

The central question of this study was: How do teachers inspire their gifted and highly able students in the secondary schools which provide for gifted and highly able learners in Victoria, Australia? In addition, the sub-questions of this study were:

1. What qualities do gifted and highly able students consider when nominating their teachers as inspiring?

2. How do teachers identified as inspiring teach gifted and highly able students and what are the pedagogical strategies used?

3. In what ways do teachers identified as inspiring by gifted and highly able students influence each other (teacher and students) in the classroom?

4. What processes contribute to and explain the interaction between teachers identified as inspiring, and their gifted and highly able students?

Significance of the Study

There is a significant amount of research regarding teaching gifted students, including different areas such as teachers' characteristics (e.g., Chan, 2001, 2011; Hong, Greene, & Hartzell, 2011; Miedijensky, 2018; Mills, 2003), teachers' attitudes, beliefs, and opinions (e.g., Berman, Schultz, & Weber, 2012; Chan & Yuen, 2014; Kronborg & Plunkett, 2012; Lassig, 2015; Matheis, Kronborg, Schmitt, & Preckel, 2017; Rosemarin, 2002; Plunkett & Kronborg, 2011), and professional development (e.g., Fraser-Seeto, Howard, & Woodcock, 2016; Hansen & Feldhusen, 1994; Rowley, 2012; Vidergor & Eilam, 2011). The academic interest to understand how to effectively teach gifted and highly able students is due to the substantial contributions that teachers can have on students (Lamb & Wedell, 2013), and because teachers' knowledge about gifted education can determine the provisions implemented to develop students' talents (Kronborg, 2018b; Kronborg & Cornejo-Araya, 2018; Rimm, Siegle, & Davis, 2018; Rowley, 2012). Gifted students who are not recognise or motivated in primary schools may develop a negative approach towards learning (Karnes & Johnson, 1991), although as Lamb and Wedell (2013) stated, "inspiring teachers can change the relationship of a learner to a subject" (p. 17).

It was possible to find relevant studies that were used indirectly to develop the basis for this study. For example, there was a study that connected two of the main concepts of this research, inspiration and teachers (Lamb & Wedell, 2013), but it was not specifically developed with a focus on gifted students or teachers for the gifted. There was also literature related to effective teachers for gifted students (e.g., Mills, 2003; Vialle & Tischler, 2009), and exemplary teachers of gifted learners (e.g., Feldman, 2009; Gentry, Steenbergen-Hu, & Choi, 2011; Graffam, 2006). Some researchers developed lists with characteristics and attributes required by effective teachers of gifted students (e.g. Bishop, 1968; Chan, 2001, 2011; Story, 1985). However, prior to conducting this research, it was not possible to find

theories or models providing theoretical explanations about how teachers inspired their gifted students, as this study aimed to do by using the theoretical concepts initially proposed by Thrash and Elliot (2003).

Gentry et al. (2011) stated that "many studies have been conducted concerning exemplary teachers, but few of them have student identification of these teachers as their basis" (p. 112). Some of these studies included peer nomination or administrator selection (e.g., Graffam, 2006; Mills, 2003). Therefore, it is important to consider students' opinions in gifted education because teachers who students rate as superior can provide valuable insights into what works for students from their perspectives (Gentry & Owen, 2004). This study contributes a more complex understanding, rather than a simple formulation of a list of teacher qualities. Consequently, if some teachers receive positive evaluations from students, this is a sufficient reason to study them, and the results can provide a new direction for effective education (Gentry et al., 2011).

Piirto (2000) argued that "schools have a duty to find, and help, those children whose 'luck' may not have permitted them to be born into an environment that will nurture their great potential" (p. 24). For example, some children live in poverty, which limits their opportunities for developing gifts and talents (Arancibia, 2009). In this regard, "this suggests the need for greater access by talented individuals to high-quality talent-development programs" (Subotnik et al., 2011, p. 20) because these students need to be challenged, motivated and inspired to develop their potential (State of Victoria, 2014). It is expected that teachers play a critical role in this process. Considering this, Feldman and Goldsmith (1991) argued that it is impossible to manipulate the entire coincidental process in talent development because many factors are beyond one's control. For this reason, this research was intended to contribute to increased positive effects that teachers might have in the academic lives of their gifted and highly able students. It was envisaged that the findings of

this study would make significant contributions to teaching, administration, and leadership, policymaking, educational psychology, and for others who work—or who will work—in the field of gifted education (see Chapter 8). Additionally, the findings presented in this doctoral research are an ideal starting point for the development of further research into understanding inspiring teachers for gifted and highly able students from a psychological viewpoint, placing emphasis on wellbeing and personal satisfaction of those involved in the field, especially educators and students.

Initial Frameworks

At the beginning of my research journey, I presented all the theories, models, and research I considered important for my study as a strategy to clarify my biases, and as a compromise to remain open with emergent information (Charmaz, 2006, 2014). Constructivist grounded theory was used as the research design for this study, following the guidelines proposed by Charmaz (2006, 2014) (see Chapter 2). Some authors consider both the literature review and theoretical framework as elements that need to be delayed until after completing data analysis (Charmaz, 2006). Glaser (1998) recognised the importance of following this process so the researcher's ideas are not contaminated by existing theories. However, other considerations included the importance of the researcher's background (Creswell, 2013; Strauss & Corbin, 1990) and recognising some problems with delaying the literature review (Thornberg, 2012).

Thornberg (2012) identified several issues with the original grounded theory dictum of delaying the literature review. First, researchers might be limited in developing new studies in their own areas of expertise. Second, the dictum might be associated with developing research as an *easy and atheoretical* activity (Morse, 1994). Third, preconceptions are unavoidable. Fourth, a literature review is critical in developing proposals,

especially if a researcher needs funding to conduct the study. Fifth, not considering extant theories means the loss of an important source of knowledge. Finally, the dictum of delaying the literature review might be understood as an underestimation of researchers' abilities to move themselves between extant theories and research findings and data analysis (Dunne, 2011). Corbin and Strauss (2008) preferred not to commence research with a theoretical framework. However, they recognised some instances in which this practice might be useful: requiring alternative explanations, building a proposal (initial concepts) or determining research methodology (Corbin & Strauss, 2008).

For these reasons, Charmaz (2014) recognised Blumer's notion of *sensitising concepts* (Blumer, 1969)*,* understood as initial ideas. Grounded theorists frequently begin their research with some guiding empirical interest (Charmaz, 2006). The "sensitising concepts can provide a place to *start* an inquiry, not to end it" (Charmaz, 2014, p. 31), and it is crucial to remain open (Corbin & Strauss, 2008). Therefore, the next sections present the framework of my sensitising concepts to clarify my perspectives and to provide evidence of my original compromise to remain open with the emergent information throughout the whole research process.

The following ideas were presented in a proposal document at the end of the first year of candidature, for my confirmation milestone in March 2017. They represent the knowledge and perspectives I had as a researcher, prior to data collection and analysis (see Chapter 7 for updated framework and discussion).

Initial theoretical framework

Gagné's (1985, 2005, 2008, 2010) DMGT model emphasises the importance of environment as a significant influence on the transformation of gifts into talents. DMGT is more than a list of attributes of gifted people as it displays the interactions between the

attributes in the dynamic development of gifts into talents (Sternberg, Jarvin, & Grigorenko, 2011). Some elements in this model are called *catalysts*—intrapersonal and environmental—which can promote or inhibit the development of giftedness (Gagné, 2013). In 2013, Gagné presented two new models. The Gagné's Developmental Model for Natural Abilities (DMNA), in which he highlighted the importance of biological elements, catalysts, and the role of maturation and informal learning in the development of natural abilities known as gifts; and the Expanded Model of Talent Development (EMTD), which integrated the DMNA and the DMGT (Gagné, 2013). In the EMTD, the role of *chance* is redefined, and it does not appear in the graphical representation because "chance qualifies the various causal influences in terms of the degree of control a person possesses over any one of them" (Gagné, 2013, p. 8).

A similar idea is presented in the Piirto Pyramid (1995, 2000), in which she recognised the influence of five *suns*—home, school, community and culture, gender, and chance—which are linked to particular factors in the environment (Piirto, 2000). Depending on how shiny these suns are, the talent will either be developed or atrophied (Piirto, 2000). Sternberg and Davison (2005) argued that giftedness is not sufficient for the development of talents. Similarly, Piirto (2000) argued that talent is not enough for success and recognised the vocational aspect as an important element which is explained through the concept of *flow*. According to Csikszentmihalyi (1990), *flow experience* occurs when one is totally engaged in an activity that is challenging and rewarding. According to Piirto (2000), "the person experiences deep concentration, a sense of being removed from present worries and cares, a sense of control over the activity, and an altered sense of time" (p. 23). Flow has often been used with other words associated with muses, soul, and calling, among others (Piirto, 2000).

Founded on the contribution of existing theories, Subotnik et al. (2011) presented a mega-model of talent development that recognised the importance of opportunities as sources

which "need to be provided to young people and taken by them" (p. 30). They positioned psychosocial factors as determining talent development. In this process, they explicitly recognised teachers' roles in three stages, based on Bloom's model (1985). In the first stage, teachers need to engage the interest of young people—*teaching for falling in love*. In the second stage, it is essential that teachers support the development of skills, knowledge, and values—*teaching for technique*—; and finally, in the third stage teachers provide mentoring the student—*to personalise a niche* with a personal style (Subotnik et al., 2011).

Further, Walters and Gardner (1986) argued that gifted adults frequently had special kinds of experiences in their childhood that had substantial impact on their lives. These experiences are called *crystallising experiences* (Walters & Gardner, 1986), which are defined as "a remarkable and memorable contact between a person with unusual talent or potential and the materials in the field in which the talent will be manifested" (p. 308). Crystallising experiences can occur in groups as well as for individuals (Freeman, 2000). The consideration of these experiences is important in a study of gifted education "because it suggests that traditional notions of gifted education may, at some level, miss the point" (Sternberg et al., 2011, p. 31). These remarkable experiences could be associated with teachers' impact and influence because teachers are significant people for gifted students (Kanevsky & Keighley, 2003). The idea of crystallising and flow experiences appear to be theoretically related to the construct of inspiration proposed by Thrash and Elliot (2003, 2004). This concept, described previously, has had a particular association with God or muses, and as a consequence, it has been virtually ignored within personality and motivational psychology (Thrash & Elliot, 2003).

In a similar way, Vygotsky (1978) developed the idea of the *Zone of Proximal Development* (ZPD), which represents the gap between what an individual knows or can independently achieve alone, and what an individual can perform with the help or guidance

of someone more experienced (Vygotsky, 1980). That person could be an adult, an older

child. or a peer who has more experience on a specific topic (Pound, 2011). Further, Pound

(2011) argued that the ZPD evidences Vygotsky's concern with understanding the child's

potential for learning. Our interactions with others allow us to create our realities (Creswell,

2013). These interactions with others and with the environment might work as a catalyst—

with positive or negative impacts (Gagné, 2011)—and may set the course of one's life

(Walters & Gardner, 1986).

Initial literature review

Lamb and Wedell (2013) asked a large number of Chinese and Indonesian students

about their experiences with inspiring English teachers and concluded that a pleasant learning

environment was a critical factor for students' motivation. This psychological element has a

significant role because "educational outcomes are affected by students' motivations to learn"

(Kaman & Kronborg, 2012, p. 49). Additionally, teachers identified as inspiring in their study

were able to change the relationship that students established with a subject (Lamb & Wedell,

2013) as teachers can affect student motivation (Anderman & Anderman, 2014). In the same

way, Burney (2008) suggested that optimal environments and educational interventions have

an effect on students' engagement and motivation.

In gifted education, Gagné (2013) described catalysts as essential components of his

model. Examples of important catalysts include peers, the learning environment, and teachers

(Kronborg & Plunkett, 2012). Teachers have an important role because "at the heart of any

student's learning experience is the teacher" (Kronborg & Plunkett, 2013, p. 52). Kaman and

Kronborg (2012) argued that "the quality of teacher and teaching methods contribute directly

to the students' experience of their learning environment. Teacher availability and support

give students a sense of security associated with a greater sense of control, autonomy and

engagement" (p. 50). As Cameron, Mills, and Heinzen (1995) mentioned in their study, 27 per cent of participating students had crystallising experiences associated with academic achievement, which were frequently related to teachers. In their study, they concluded that the most crystallising experiences occurred in public settings, were associated with personal achievement, provoked, and were frequently related to meaningful interactions with other people (Cameron et al., 1995).

Additionally, in Kaman and Kronborg's (2012) study, they propounded the concept of *flow* as an important characteristic for teachers. They argued that "flow is an autotelic experience—it is one that is innately enjoyable; it highlights the propensity for gifted children to have intrinsic motivation and a need for autonomy and immersion, when learning" (Kaman & Kronborg, 2012, p. 58). Moreover, Sciefele and Csikszentmihalyi (1994) noted that when teachers are in flow they can motivate and engage their students, and be a mutual influence, which was described as an indispensable part of education.

According to Rosemarin (2014), "not all teachers should be assigned to teach the gifted" (p. 263). In her discussions, she asked if gifted students needed a teacher who was a gifted person, an expert in the field that he or she taught, or gifted in his or her teaching abilities (Rosemarin, 2014). In the same way, Kronborg and Plunkett (2012) interviewed teachers in a new select-entry high school. In this research, participants highlighted teacher qualities required for teaching highly able students emphasising domain expertise as one of the most important qualities alongside being enthusiastic about students with high abilities (Kronborg & Plunkett, 2012). Additionally, Mills (2003) identified that cognitive and personality profiles were highly similar between academically talented students and their exemplary teachers.

Some countries, such as the US, have developed standards to define the "essential knowledge and skills that teachers need to acquire to be effective in teaching gifted and

talented students in the classroom" (VanTassel-Baska & Johnsen, 2007, p.183). These standards are related to individual learning differences, instructional strategies, learning environments and assessment, among other aspects (VanTassel-Baska & Johnsen, 2007). Essential knowledge is required in professional learning for teachers of the gifted because they need specialised teacher development to respond to gifted students' special requirements (Rowley, 2012). These requirements may be addressed through specific strategies such as extended and differentiated curriculum, and grouping (Kronborg & Plunkett, 2012, 2015). It is evident that there can be a significant difference between trained and untrained teachers. For example, qualified teachers demonstrate better teaching skills and develop positive learning environments, and they promote discussion and higher thinking skills (Chan, 2001; Hansen & Feldhusen, 1994). Some positive consequences of teacher development are related to changes in teachers' attitudes and perceptions (Kronborg & Plunkett, 2012). Even a single unit can make a difference in ensuring the future teachers of the gifted are more informed (Plunkett & Kronborg, 2011). As Knopfelmacher and Kronborg (2003) emphasised, teachers need to take responsibility for their own development and learning. Teacher development helps to address complex issues such as psychosocial considerations (Kronborg & Plunkett, 2015; Subotnik, 2015).

Position of the Researcher

As Creswell (2013) argued, the researcher's background is an important consideration in qualitative research because their work experience, culture, and history shape the researcher's interpretations. Therefore, as an international student, it is important for me to recognise and acknowledge the context in which my personal and academic interest in gifted education has been developed to clarify biases, prejudices, and orientations (Creswell, 2007).

This reflective exercise commenced with the initial frameworks presented above, but also needed to include my own background, interests, and motivations as a researcher.

I am a Chilean psychologist, with a Master in Educational Psychology and a Diploma in Gifted Education. I worked as an educational psychologist, mainly in rural schools, aiming to contribute to the teaching and learning process. Additionally, I worked as an academic in the university at which I studied my undergraduate degree and where I will be working once I return to Chile following the completion of my doctoral studies. My academic interest in the field of gifted education began when I was in my second-last year as an undergraduate student, and one of the lecturers taught us about a particular program for gifted students implemented by one of the most prestigious universities in Chile. I searched for information on this topic but found limited resources to examine, with most of them in English, which was a huge limitation for myself during those days.

Gifted education is a relatively new area of scientific interest in the Chilean academic community (Cornejo & Benavides, 2013). In 1999, as a result of a proposal from the *Fundacion Andes,* the *Pontificia Universidad Católica de Chile* began to develop a program designed for academically talented students (Morales, Lobos, & Navarrete, 2016). The program named *Programa de Estudio y Desarrollo del Talento PentaUC* (Program of Study and Development of Talent, PentaUC) has been in operation since 2001 at the premises of the *Pontificia Universidad Católica de Chile* (PentaUC, 2015), which is located in Santiago, the capital city of Chile. PentaUC is an extracurricular enrichment program with the aim to develop an educational space with theoretical and practical work to foster the capabilities of talented Chilean students from Grades 6 to 12 (Arancibia, Lissi, & Narea, 2008). These students have special classes every Friday afternoon and Saturday morning and continue with their heterogeneous classes during the rest of the week (Arancibia et al., 2008). Since the

introduction of this program, it has been shared with other universities in Chile and there are now seven programs in total.

During one of the units in my master's degree in 2011, we discussed some topics related to gifted education. This class reengaged me with my interest in this area and motivated me to enrol in the diploma of gifted education. Two years later, as an academic at the *Universidad Católica del Maule* in Chile, and part of the educational psychology team, we edited our first academic book, in which I wrote my first chapter about gifted education in Chile. Writing this book chapter helped me to better understand the connection between the field of gifted education and psychology, due to many important authors and researchers studied in my undergraduate years who contributed to this field—Sir Francis Galton, Alfred Binet, Lewis M. Terman, among others—(see Robinson & Jolly, 2014). Subsequently, we published three more books and included at least one chapter about gifted education in each book. These publications emphasised that Chile lacked both the national standards for gifted education and a national association that could set such standards and policies (Cabrera-Murcia, 2011). Consequently, professional development and postgraduate opportunities are limited (Cornejo & Benavides, 2014) and Chile has an obligation to generate real opportunities for gifted students (Conejeros, Cáceres, & Riveros, 2012), which was an important motivation to enrol myself and my experiences, in a PhD program on the other side of the Pacific Ocean.

Thesis Structure

This thesis consists of eight chapters and follows a traditional structure. Each chapter includes an overview that provides a general idea about the chapter's structure and content, and concludes with a summary, which highlights the main ideas presented in the chapter. Table 1.2 provides a summary of the thesis chapters:

Table 1.2

Summary of Chapters

Chapter	Title and Description
2	Methodology
	The methodological basis and its philosophical underpinnings are discussed in this chapter. A detailed explanation of data collection, data analysis, and the emergence of the theory are presented, as well as the decisions regarding the organisation of the research process.
3	Being a Knowledgeable and Passionate Teacher
	This chapter provides an analysis of the processes and actions used by teachers identified as inspiring, who reported on their understanding of how they became knowledgeable and passionate, and how their disposition led them to perform their role as teachers of gifted and highly able students.
4	Creating an Academically Safe Learning Environment
	This chapter examines how teachers identified as inspiring developed safe learning environments by acknowledging gifted and highly able students' characteristics and by developing positive learning environments and relationships.
5	Teaching above and beyond the Recommended Curriculum
	This chapter explains how teachers identified as inspiring taught their gifted and highly able students above and beyond the expected curriculum, and explained the meaning of their teaching, their teaching approach, and the strategies used to teach their students to prepare them for their future lives.
6	Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Student*s*
	This chapter presents the theory that emerged from the experiences, actions, and meanings of participants. The theory is explained through three interrelated phases, the three main categories presented in previous chapters, and four contextual factors, which mediated the core process.
7	Literature Comparison and Discussion
	This chapter situates the findings within the existing literature. It contrasts the emergent theory with the available research in the fields of education, gifted education, and educational psychology.
8	Conclusion
	This concluding chapter presents the evaluation of the emergent theory following the criteria of credibility, originality, resonance, and usefulness. It also presents the limitations, contributions, and recommendations for future research and educational practice.

Summary

This chapter has outlined the main concepts and background to the research study, including an explanation of the Australian context in order to understand the importance, and relevance of the study. An overview of the research design, purpose, aims, and research questions were also presented. The original frameworks were declared, as they were conducted prior to data collection and analysis.

This chapter concluded with the position of the researcher and an overview of the thesis structure. The next chapter provides further details of the research methodology and the process of theory development.

Chapter 2: Methodology

Chapter Overview

This chapter outlines the methodology implemented in this study of secondary teachers who inspired gifted and highly able students in three selective programs for gifted and highly able at three different secondary schools in Melbourne during 2017–2018. This chapter explains why a qualitative approach was developed and provides the rationale for constructivist grounded theory as the research design. It also describes the procedures followed in this grounded theory study. Additionally, data collection and data analysis processes are explained in detail, including clarification of the decision-making process at different stages, description of participants and methods, explanation of the use of NVivo software, the preparation of data to be analysed, description of the coding process—which followed Charmaz's (2014) guidelines—and an overview of the theory development process. Finally, considerations of rigour and trustworthiness are explained in relation to the procedures implemented in this study.

Why Qualitative Research?

This research was conducted as a qualitative study for several reasons. First, the phenomenon of secondary teachers who inspired gifted and highly able student was investigated from a different angle (Hays & Singh, 2012), based on students' perspectives and the use of different concepts such as inspiring teachers, rather than exceptional (Mills, 2003) or effective (Chan, 2001) teachers for gifted students. Second, the literature did not provide enough information about this topic and there was a need to learn from participants through exploration (Creswell, 2016). Third, this exploration in context was indispensable to better understand the phenomenon with complexity and detail (Creswell, 2013; Creswell &

Poth, 2018; Hays & Singh, 2012). Fourth, participant insights were fundamental to answer the research questions (Saldaña & Omasta, 2017) and to address the *how* and *what* aspects of the studied phenomenon (Hays & Singh, 2012). Finally, the use of a qualitative approach recognised that researchers interpret what they find, which is shaped by their experiences (Creswell, 2016).

Rationale: Social Constructivism and Constructivist Grounded Theory

Social constructivism contends that people construct their understanding of reality (Guba, 1990) through their interactions with others (Creswell, 2007). These interactions are understood as social constructions (Creswell, 2013) through which people construct meaning (Lincoln & Guba, 1985). Interaction is the common process addressed by constructivist researchers as well as the specific context in which the phenomenon occurs to better understand the settings (Creswell, 2013). Therefore, multiple realities exist and are dependent on individuals (Guba, 1996).

Social constructivism can be applied to the learning process across different domains: knowledge, attitudes, and skills. This is achieved through verbal interactions, assuming no one has all the answers and the importance of social interactions between more experienced and less experienced members (Philpott & Batty, 2009). What is known or understood originates from social processes through consensus in specific cultural contexts (Cottone, 2007). Consequently, "knowledge is cognitively constructed from experience and interaction of the individual with others and the environment" (Denzin & Lincoln, 2011, p. 107).

These previous ideas are helpful to understand giftedness and gifted education. Many authors who have developed models or explanations about giftedness have emphasised the importance of interactions with others and with environments, such as "expert teachers or mentors, individual abilities, and psychosocial factors" (Subotnik et al., 2011, p. 27). For

instance, Csikszentmihalyi (1996) considered giftedness as an interaction between an individual and the environment and VanTassel-Baska (2005) recognised giftedness as a multidimensional construct, which is affected by both genetic and environmental factors.

There are several studies about the importance of teachers for gifted and highly able students, although few of them have student nomination as their basis (Gentry et al., 2011). However, not one of those studies used the construct of *inspiration*, which was studied by the psychologists, Thrash and Elliot (2003, 2004). Therefore, constructivist grounded theory was an appropriate research design because teachers who inspired gifted and highly able students needed to be studied through a qualitative approach and there was no available theory to explain this phenomenon.

The purpose of grounded theory "is to move beyond description and to generate or discover a theory" (Creswell, 2013, p. 83) for a process or an action (Charmaz, 2006; Corbin & Strauss, 2008). In grounded theory, participants experience the studied phenomenon and the newly generated or discovered theory seeks to explain or develop a framework for future studies (Creswell, 2008). This theory is grounded in data from those who experienced the phenomenon (Strauss & Corbin, 1998). Hence, this theory "emphasises interpretation and gives abstract understanding greater priority than explanation" (Charmaz, 2014, p. 231).

Grounded theory was originally developed in 1967 by Glaser and Strauss, but they ultimately had different opinions about its meaning and procedures (Creswell, 2013). For example, Glaser (1992) considered Strauss's approach to be too structured and prescribed. Different options for conducting grounded theory emerged and the differences might be explained as being located on the extremes of a continuum (Charmaz, 2009) or as a methodological spiral (Mills, Bonner, & Francis, 2006). Objectivist grounded theory, which arises from positivism, assumes the discovery of data as an external world by a neutral expert observer (Charmaz, 2009). Conversely, in constructivist grounded theory the viewer creates

the data interacting with the viewed, being part of it, rather than separate (Charmaz, 2000) and data are constructed rather than discovered (Charmaz, 2009). Hence, there are two popular approaches to grounded theory (Creswell, 2013): the systematic procedures of Strauss and Corbin (1990, 1998), and the constructivist approach of Charmaz (2006).

Charmaz (2006) explained that in their original book, Glaser and Strauss (1967) invited researchers to use their design with flexibility, which is why Charmaz (2006) developed "a way of doing grounded theory with flexible guidelines, not methodological rules, recipes, and requirements" (p. 9). Her constructivist grounded theory—used in this study—adheres to a social constructivist perspective that recognises diverse local worlds and their complexities (Creswell, 2013). Charmaz (2006) emphasised values, beliefs, views, assumptions, feelings and ideologies. Additionally, constructivist grounded theory "encourages the researcher to examine the standpoints of the participants, their historical locations, and social circumstances" (Charmaz, 2009, p. 143) as it is less structured and more adaptable (Charmaz, 2008).

Constructivist grounded theory is used to learn and understand different worlds and is an appropriate design for developing theories about them (Charmaz, 2006). Additionally, Charmaz (2006) considered that "we construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices" (p. 10). The researcher makes decisions about categories, recognises personal values and experiences, and brings questions to the collected data (Charmaz, 2014).

Fundamental Procedures in Grounded Theory Studies

Grounded theory studies are distinguished by specific and interrelated processes, which make possible the development of a theory grounded in participants' experiences. Before explaining how these processes operated in practical terms, their theoretical

descriptions are described in this section. The main processes were: theoretical sampling and theoretical saturation; abductive reasoning; constant comparative method; coding; memo writing; and theoretical sorting, diagramming, and integration.

Theoretical sampling and theoretical saturation

Theoretical sampling is a purposeful sampling approach, which is developed according to tentative or emergent categories (Charmaz, 2006). Theoretical sampling is "strategic, specific, and systematic" (Charmaz, 2014, p. 199). It helps the researcher to make decisions about finding data to develop and refine properties of the categories and their relationships (Charmaz, 2014; Strauss & Corbin, 1998). Theoretical sampling brings the researcher back to the field, providing analytic depth and precision (Charmaz, 2006, 2014). In a grounded theory study, the sampling process continues until all categories are theoretically *saturated* (Glaser & Strauss, 1967), which means "well developed in terms of properties, dimensions, and variations" (Corbin & Strauss, 2008, p. 263), and when no new properties emerge (Charmaz & Henwood, 2008; Glaser & Strauss, 1967).

From inductive to abductive reasoning

Theoretical sampling is characterised by a specific form of reasoning that occurs when the researcher discovers a surprising finding which does not fit previous theoretical explanations (Charmaz, 2014). Abduction allows the researcher to go beyond induction and consider all possible theoretical explanations until concluding the most plausible interpretation of the data (Reichertz, 2007). According to Reichertz (2007), abduction is "a cerebral process, an intellectual act, a mental leap, that brings together things which one had never associated with one another: a cognitive logic of discovery" (p. 222).

Constant comparative method

Constant comparative method is an analytic method conducted at each level of analysis (Glaser & Strauss, 1967), which leads the researcher to more abstract ideas through "comparing data with data, data with code, code with code, code with category, category with category, and category with concept" (Charmaz, 2014, p. 342).

Coding

According to Charmaz (2014), coding is "the process of defining what data are about" (p. 111). Following her guidelines, coding in constructivist grounded theory studies involves initial, focused, axial, and theoretical coding (Charmaz, 2006). Initial coding involves categorising segments of data with short labels that simultaneously summarise and account for each piece of data (Charmaz, 2006). Initial codes are "provisional, comparative, and grounded in the data" (Charmaz, 2006, p. 48).

Focused coding involves using the most important, significant, or frequent codes generated during initial coding to code large amounts of data using analytic procedures (Charmaz, 2014). These codes are more directed, selective, and conceptual (Glaser, 1978).

Axial coding "relates categories to subcategories, specifies the properties and dimensions of a category and reassembles the data you have fractured during initial coding to give coherence to the emerging analysis" (Charmaz, 2006, p. 60). Axial coding allows for the organisation of large amounts of data (Creswell, 1998) into a coherent whole (Strauss & Corbin, 1998) and can provide a framework (Charmaz, 2014). It is an optional coding that depends on researchers' abilities to tolerate ambiguity (Charmaz, 2006).

Finally, theoretical coding is defined as a "sophisticated level of coding that follows the codes you have selected during focused coding" (Charmaz, 2006, p. 63). Theoretical coding allows the researcher to specify possible relationships between previously developed

categories (Charmaz, 2006). These codes are integrative and may help the researcher to develop an analytic story in a theoretical perspective (Charmaz, 2014).

Memo writing

Memos are referred to as "narrated records of a theorist's analytical conversations with him/herself about the research data; as such, they provide particular ways of knowing" (Lempert, 2010, p. 247). Memo writing is considered a critical method in grounded theory because it enables the researcher to analyse the data and codes at an early stage in the process (Charmaz, 2006). These memos are written in informal language for personal use and in an increasing analytic style (Charmaz, 2014). As Charmaz (2014) suggested, memos are written down on paper and stored in computer files as a memo bank (Clarke, 2005).

Theoretical sorting, diagramming and integration

Grounded theorists use the interrelated processes of theoretical sorting, diagramming, and integration to facilitate theoretical development, by organising memos to clarify implicit theoretical codes and integrate the categories (Charmaz, 2014). Diagrams can be helpful to represent the categories, their theoretical links, and directions throughout the process (Charmaz, 2006).

Data Collection

The data collection process for this study was organised in two main stages according to the student and teacher participants. The period of data collection varied across the three participating schools. Data were collected between August 2017 and March 2018, when theoretical saturation occurred. This section describes the ethical considerations, stages and,

chronologically procedures for the study. Additionally, this section explains the decisions

made to ensure the collection of rich data.

Ethical considerations

Ethical issues emerged during different phases of data collection process. Table 2.1

describes these considerations and how they were addressed prior to the study, during the

beginning of the process, and when data were collected:

Table 2.1

Ethical Issues During the Data Collection Process

Timing	Ethical issue	How issue was addressed
Prior to conducting the study	Monash University approval	Received approval certificate from Monash University Human Research Ethics Committee (Project number 8723)
	Department of Education and Training (Victoria)	Received letter of approval from the Victorian Department of Education and Training (Project number 2017_003411)
	Regional Director (South Eastern Victoria)	Regional Director was informed about the intention to approach schools in the region
	Principals	Received letter of approval to conduct research in schools
Beginning to conduct the study	Disclosure of the purpose of the study and informed consent from participants	Explanatory statement was sent to all participants (and parents)
		Consent forms were signed by parents and teachers. By completing the online survey students authorised the use of their responses
Data collection	Respect to the study site	A key person was contacted to help with the administrative tasks to avoid disruptions
	Respect participants	Sensitive information was avoided or not informed when it was not related to the research
	Storage of data and materials using appropriate security methods	Data were stored in a password protected computer and hard copies were stored in the cabinet of the Chief Investigator

Adapted from Creswell (2016).

Stages and methods

This study was originally organised in two main stages. The first stage involved Years 9–11 students from three programs for gifted and highly able students at three different secondary schools in Melbourne. The second stage involved a selected group of their teachers. Five schools with secondary students were invited to take part in this research and three of them accepted the invitation to participate.

In practical terms, these stages occurred in different sub-phases in an overlapped process. The data collection process described below addressed four theoretical concerns, which influenced the data that were sought and the methods for data collection, including theoretical plausibility, direction, centrality, and adequacy (Charmaz, 2014). For this section, and to explain the process in a chronological order, these two main stages were divided into six sub-phases. All issues that emerged during the data collection process are described in each phase, as well as how they were addressed.

Student responses—First set

As suggested by Charmaz (2014), it was recommended to establish sampling criteria for initial sampling. Criterion sampling was used to select participants for the first stage, using three criteria: students from secondary schools with provision for gifted and highly able students, students enrolled in Years 9–11, already identified as gifted and highly able students.

In this phase, participants included 26 secondary students from a Select Entry Accelerated Learning (SEAL) program in a government secondary school for selected gifted and highly able students in Melbourne (identified as Secondary School A[7]) who were already identified as gifted and highly able in Year 9. In Secondary School A, Year 9 was the last

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[7] Identification letters were assigned according to the order in which principals' authorisations were gained.

year of students' enrolment in the program for gifted and highly able students. Data were collected between August and September 2017.

As students were under 18 years old, information was provided to all 75 Year 9 parents. An invitation (see Appendix A) was created and posted in their communication portal, which included a link and a QR code that contained the explanatory statement (see Appendix D) and parental consent (see Appendix C). Additionally, these forms were sent as hard copies to improve the return rate. Parental consent forms were collected in a box located outside the office at Secondary School A. The return rate for parent responses was 41.33 per cent. Thirty-one Year 9 students were invited to take an online survey and 83.87 per cent completed it successfully.

An online survey was created on Qualtrics (see Appendix D) and was sent to students through the same platform via email distribution. Students' emails were collected from the returned parent consent forms. The email contained the explanatory statement (see Appendix E). At the beginning of the survey it was explained that by completing and submitting the survey the participants were authorising the researchers to use their responses for the study.

This survey contained two main parts. In the first part, following the initial explanation, students completed a demographic questionnaire with seven items. In the second part, participating students completed the online questionnaire, in which they nominated up to three secondary teachers they had worked with in their selective programs, who they considered significant and inspirational for their academic life. A definition of inspiration was provided at the beginning of the nomination section. Each nomination was followed by five open-ended questions. The survey ended with a broad question about what makes a teacher inspiring.

The online survey was tested by three professionals prior to being sent to students—a psychologist who was involved in the field of gifted education, a secondary teacher who was

teaching mainstream students in Years 9 and 10, and an occupational therapist who was not involved in the education field. Due to this testing process, it was possible to check that the information collected conformed to expectations and that the majority of questions were clear. The three reviewers agreed that the survey was friendly and easy to complete. They also agreed that the questions about accomplishments and awards needed to be more explicit for those students who did not recognise any formal accomplishment. Consequently, this item was amended to a broader question. Additionally, two reviewers considered the definition of inspiration to be difficult for students in Years 9–11 to understand. The definition of inspiration used was "the process that takes place when somebody sees or hears something that causes them to have exciting new ideas or makes them want to create something" (Oxford Dictionary, 2014, p. 814). This definition had simpler words and was updated and easier to understand, although it retained the same meaning as used by Thrash and Elliot (2003) studies[8]. Finally, question five in the nomination section was considered slightly difficult to comprehend, so examples were added.

Further, the survey was configured using some Qualtrics settings to facilitate its completion—*by invitation only, back button, save and continue*, and *prevent ballot box stuffing* were used to give the participants the flexibility to complete the survey and to prevent them from responding to the survey more than once. Additionally, Qualtrics was set so that only completed questions were recorded. Finally, two reminders were sent to student participants to increase participation, and a 'thank you' email was sent to those who completed the survey.

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[8] "A breathing in or infusion of some idea, purpose, etc. into the mind; the suggestion, awakening, or creation of some feeling or impulse, especially of an exalted kind" (Simpson & Weiner, 1989, p. 1036).

Teacher interviews—First set

Students from the first set of student responses provided 31 nominations in total. These students nominated 14 different inspiring teachers, as some nominations were duplicated. Of these teachers, four received the highest number of nominations and were invited to participate in an interview and a classroom observation of their teaching. Three of these teachers agreed to participate in this research. Their main areas of knowledge were history, biology, and English. Table 2.2 shows a summary of the teacher nominations at Secondary School A:

Table 2.2

Nomination Summary

Secondary school	Year	Valid responses	Teachers nominated	Teachers nominated more than twice
Secondary School A	9	26 completed surveys	14	4

Student nominations were used as a guide to select teacher participants. The principal was notified of the most frequently nominated teachers. Teachers were then contacted via their email addresses, which were obtained from the Gifted Education Coordinator.

An email was sent as an invitation to participate and included the explanatory statement (see Appendix F), consent form (see Appendix G) and demographic questionnaire (see Appendix H) as attachments. The three teachers who agreed to participate returned the consent and demographic forms via email. The initial type of sampling used was criterion sampling based on students' nominations.

At the beginning of the research process, an interview protocol was developed (see Appendix I). This flexible protocol was reviewed and adapted based on students' responses during the previous phase and modified again after conducting a new interview. These

guidelines enabled open and flexible conversations with the interviewees because it was unstructured enough to allow the discovery of new data, which fulfilled emergent categories. Additionally, according to constructivist grounded theory guidelines (Charmaz, 2014), participants' definitions were emphasised, understanding their assumptions and meanings, through asking *what* and *how* questions, and asking additional questions for clarifications. Finally, field notes were written down by the researcher immediately after the interview.

One audio-recorded, face-to-face, and in-depth interview was arranged with each teacher participant, taking place in mutually agreed locations and times (varying from an office at the school to a coffee shop). The length of interviews was between 59 and 73 minutes. When the interviews concluded, participants were asked if they could be contacted via email if clarification or new questions were required and all participants consented. Moreover, member checking was conducted with each teacher participant, and following Charmaz (2014); this was an opportunity to gather extra material to elaborate categories with the aim of theoretical saturation. Data were collected between September and November 2017.

Student responses—Second set

The same sampling criteria described in the first set of student responses were used in this phase. Participants were 64 secondary gifted and highly able Year 10–11 students from three programs for gifted and highly able students in Melbourne. Data were collected between October and December 2017.

In this phase, there were 17 participants who were Year 10 students from the SEAL program in Secondary School A, already identified as gifted and highly able students. Information was sent to all 75 families through the secondary school's communication portal. The explanatory statement and consent form were also sent as hard copies to improve the

return rate. Parental consent forms were collected in a box located outside the office at Secondary School A and the return rate for parent responses was 29.33 per cent. During this period, there was a change of school principal as the long-standing principal had chosen to retire. Twenty-two Year 10 students were invited to take the online survey and 77.27 per cent completed it successfully. Two reminders were sent to increase participation, and a 'thank you' email was sent to those who completed the survey.

Another group of participants involved 25 Year 10 students from a government selective high school (Secondary School B) in Melbourne, who were already identified as gifted and highly able students. Information was sent to the 208 Year 10 parents through the school's communication portal and also as hard copies. Parental consent forms were collected in boxes located in strategic places around the school and the return rate for parent responses was 17.30 per cent. Thirty-six students were contacted to participate in this study and 69.44 per cent of them successfully completed the online survey. Four reminders were sent to increase participation, and a 'thank you' email was sent to those who completed the survey.

Finally, the last group of participants involved 23 Years 10–11 students from an extension program for gifted and highly able students at a leading independent secondary girls' school in Melbourne (Secondary School C). Information was sent to a group of 26 parents, and their responses were collected by the Head of Gifted Education and Extension Programs. The return rate of parent responses was 100 per cent. Twenty-six students were invited to complete the online survey and 88.46 per cent completed it successfully. One reminder was sent to increase participation and a 'thank you' email was sent to those who completed the survey.

Classroom observation—First set

A non-participant classroom observation was arranged via email with the three participating teachers from the first set of teacher interviews to check categories and to improve the knowledge of the field. These classroom observations were made using researcher notes and an observation protocol (see Appendix J) but did not include any audio or video recording. Table 2.3 presents the main features of these observed classes. The researcher was located at the back of the classrooms to avoid major disruption to the classes. Data were collected in November 2017.

Before or after each classroom observation—depending on the teachers' availabilities—analytical conversations were conducted with each teacher. The aim of those conversations was to revise the main elements of the classroom observations, and to undertake member checking, providing an opportunity for teachers to clarify or add any extra information they considered relevant. Additionally, these classroom observations provided new guidelines for the next set of teachers' interviews.

Table 2.3

Classroom Observation Summary

Feature	Observed
Classes observed	3
Year	Year 9
Subjects	English, history, biology
Duration	50 minutes each class
# of students per class	An average of 21 students per class (between 15 and 25 students)
# of teachers per class	1

Teacher interviews—Second set

Students from the second group of student responses provided 100 nominations in total. These students nominated 52 different teachers as being inspiring teachers, with some

duplicate nominations. Of these teachers, nine received the most frequent nominations and were subsequently invited to participate in an interview and a classroom observation of their teaching. Eight of them agreed to participate in this study. The teachers' main areas of knowledge were mathematics (4), history/geography (2), biology (1), and economics (1). Table 2.4 displays a summary of the second set of nominations from Secondary Schools A, B and C:

Table 2.4

Nominations Summary

Secondary school	Year	Valid responses	Teachers nominated	Teachers nominated more than twice
A	10	17	13*	2
B	10	25	20	3
C	10	10	21	4
	11	13		

*Note: Two of these teachers were previously nominated in the first set of student responses.

The same procedures described in the first set of teacher interviews were followed to contact participating teachers. Fifty per cent of the participating teachers (4 of 8) sent back the consent and demographic forms via email. The other four handed the forms back to the researcher in person.

In this phase, theoretical sampling was used until theoretical saturation occurred. As Charmaz (2014) maintained, "when we engage in theoretical sampling, we may assume a more active role in the interview and ask more direct questions than in earlier interviews" (p. 85). The same flexible protocol was used, and it was continually modified according to new emerging data, which allowed the researcher to return to the field to collect more focused data.

As mentioned previously, one audio-recorded, face-to-face and in-depth interview was arranged with each participant. Interviews occurred in mutually agreed locations and times and the eight interviews were conducted at each teacher's school. The length of the interviews was between 51 and 64 minutes. The same procedures previously described were followed after each interview and data were collected between December 2017 and February 2018.

Classroom observation—Second set

A non-participant classroom observation was arranged via email with the eight participating teachers from the second set of teacher interviews. These classroom observations did not include audio or video recordings; just researcher notes and an observation protocol. Table 2.5 presents the main features of these observed classes. The researcher was located at the back of the classroom to avoid major disruptions. Data were collected between February and March 2018. The same procedures were followed after each classroom observation, allocating time to have analytical conversations with each teacher, member checking and the opportunity for participants to clarify or add information.

Table 2.5

Classroom observation summary

Feature	Observed
Classes observed	8
Year	9–10
Subjects	Mathematics, biology, history/geography & economics
Duration	50–100 minutes
# of students per class	An average of 22 students per class (between 18 and 25 students)
# of teachers per class	1*

Note: A pre-service teacher observed one of the classes (non-participant).

In summary, 91 gifted and highly able students from Years 9–11 in three different secondary schools in Melbourne, completed an online questionnaire, in which they nominated up to three teachers they considered inspiring for their academic life. Students made a total of 131 nominations, and due to some duplications, students nominated 66 different teachers. From these, 8.58 per cent (13 teachers) were nominated more than twice and 11 of them accepted the invitation to participate in this research.

Memo writing and methodological journal

Memo writing and a methodological journal were strategies developed during the process of data collection and analysis.

Memo writing

Memo writing was used as an important data source during the process of data collection and analysis, as suggested by Charmaz (2006), Corbin and Strauss (2008), and Strauss and Corbin (1998). Despite initial thoughts, the researcher found it helpful to have a small notebook and pen in her bag with which to take notes. Sometimes theoretical or methodological ideas emerged as insights outside the office and away from the computer. In addition, the researcher recorded voice memos (Apple has that option on the iPhone). These memos—written down on paper and audio recorded—were transcribed and stored in digital files, creating a memo bank as suggested by Clarke (2005). These memos were subsequently added into NVivo 11 as memo sources. These memos were written in an increasing analytic style (see example in Appendix K) to help in the development of categories and their relationships (Charmaz, 2014).

Charmaz (2014) recommended keeping a methodological journal to avoid preconceptions about new data and to engage in reflexivity, helping researchers to think outside the box (Corbin & Strauss, 2008). This journal was used as a personal diary to reflect on feelings, concerns, and preconceptions before and after each step during data collection and analysis. It was helpful to be aware of personal biases and to be self-critical in improving personal skills, for instance when conducting interviews (see example in Appendix L).

Participant demographics

Participants were from three different educational contexts. Secondary School A was a public school, which catered to students in Years 7 to 12, and one of 25 metropolitan accredited secondary schools in Victoria that offered a SEAL program for their gifted and highly able students. SEAL programs provide accelerated learning in high-ability grouped classes, from Years 7 to 10, where students learn in three years, the curriculum compacted from four years, and engage in some learning subjects, shared with mainstream classes of mixed-ability students (Kronborg, 2012; Plunkett & Kronborg, 2007). Different tests, interviews, and teacher references are conducted each year with selective purposes for student applicants. Examination includes EduTest—verbal and numerical reasoning, reading comprehension, and mathematics—, ACER test (Australian Council for Education Research)—written expression, humanities for comprehension and interpretation, and mathematics—, and HAST (Higher Ability Selection Test)—reading comprehension, mathematical and abstract reasoning, and written expression.

Secondary School B was one of the four selective high schools for gifted and highly able students in Melbourne (Kronborg, 2018a), catering for students from Years 9 to 12. A centralised selection process is organised by the Department of Education and Training in

Victoria. The examination process is comprised of ability and achievement testing—creative and persuasive writing, reading comprehension, mathematics, and verbal and numerical reasoning. Applying for a selective high school is highly competitive, and 85% of the students are accepted based on exam results, 10% through equity consideration, and 5% of enrolments are at the principal's discretion.

Finally, Secondary School C was a leading secondary girls' school, which also had differentiated classes in mainstream groups. This school provided educationally for students from K-12. School C, had extension and International Baccalaureate programs for gifted and highly able students. The process to select students into the gifted and extension programs consisted of varied cognitive and achievement testing, teacher referral, personality profiling, and student interests. In Year 7, the examination process includes reasoning tests using the Academic Assessment Services (placement testing)—verbal, numeric, and general reasoning—, Raven's Progressive Matrices—visual-spatial ability testing—, ACER Scholarship testing, Mathematics Achievement testing, and Language Performance testing—reading, writing, and spelling. In Year 9, all students sit the ACER APTS-E (Aptitude Profile Testing Series), so that student aptitudes are assessed further.

Students

The 91 student participants completed a section in the online questionnaire with demographic information, which provided relevant data to be considered through the processes of data analysis and theory development. Table 2.6 summarises the main demographic information of the 91 participating students:

Table 2.6

Demographics—Student Participants

Demographic criteria			
Gender	Female: 65.93% (n = 60)	Male: 34.07% (n = 31)	
Age	Range: 14–17 years	Mean: 15.63 years	
Time at the school	Range: 1–11 years	Mean: 3.14 years	
Year level	Y9: 28.57% (n = 25)	Y10: 57.14% (n = 52)	Y11: 14.29% (n = 13)

Students also provided information related to their areas of interest and extracurricular activities, in which sports were identified as a main area of interest (24.90%), including cricket, soccer, swimming and tennis, with some students who performed at a competitive level. This was followed by music (20.33%), in which students mentioned that they listened to music, played an instrument (e.g. piano, violin, percussion), or composed music. Students also identified some academic areas of interests, such as science, mathematics, and social sciences (18.58%). Students also mentioned different areas of entertainment such as reading, playing video games, and watching TV. Art was also identified as an interest, with an emphasis on drama and performing arts.

The school subject in which most of the students achieved their best results were science (identified by 63), including biology, chemistry, and physics. Science was followed by mathematics (identified by 54) and English (identified by 29). Gifted and highly able student participants were also asked about their main accomplishments, achievements, and awards they received or achieved. Students identified a wide range of accomplishments and achievement, including academic achievement, such as awards for academic performance (26.74%); participation in academic contests, such as Olympiads (19.76%); and high academic performance in school subjects (18.60%). Students also identified sports and

musical achievements, as well as participation in social programs. One student did not respond to this question.

The students provided 133 teacher nominations, with 66 teachers nominated from 22 different teaching areas (see Appendix M). Considering the total amount of teacher nominations, 3.29% were linked to the areas of interest mentioned by the gifted and highly able students, displaying a coincidence between the areas of interest and the subjects taught by the nominated teachers. The subjects in which they achieved their best results were related to 34.09% of the teacher nominations. Moreover, 3.29% of nominations were linked to their accomplishments, achievements, or awards. Additionally, 14.28% of the nominations were related to the areas of interest and the subjects with best results combined. In the same way, 1.09% coincided with students' areas of interest and achievements. Best results and achievements were related to 9.89% of the teacher nominations. Together, the three areas— interests, best results, and achievements—were linked to 15.38% of the teacher nominations. Finally, 18.68% of the nominations had no relation to the three criteria.

In terms of gender, 38.59% of the female participating students nominated exclusively female teachers, 36.84% nominated male teachers and 24.56% nominated both female and male teachers. From the male student participants, 29.03% nominated exclusively female teachers, 54.84% nominated male teachers and 16.13% made nominations of both genders. All students came from schools where male and female teachers taught varied subjects to the students.

Teachers

Eleven teachers participated in the study. Five of them were from Secondary School A, two from Secondary School B and four from Secondary School C. Regarding their areas of knowledge, 36.36% were mathematics teachers, 27.27% history and geography teachers,

18.18% biology teachers, 9.09% English teachers, and 9.09% economics teachers. Table 2.7
summarises the main information of the 11 teacher participants:

Table 2.7

Demographics—Teacher Participants

Gender	Female: 36.36% (n = 4)
	Male: 63.63% (n = 7)
Age	20–30: 18.18% (n = 2)
	31–40: 36.36% (n = 4)
	41–50: 27.27% (n = 3)
	51–60: 18.18% (n = 2)
Highest degree	Bachelor: 36.36% (n = 4)
	Master's: 54.55% (n = 6)
	PhD*: 9.09% (n = 1)
Professional learning in gifted education**	Professional development (n = 6)
	Units in Master's degree (n = 3)
	Master's in gifted education (n = 2)
	Short course (n = 2)
	Seminars in gifted education (n = 1)
	Units as a pre-service teacher (n = 1)
	None (n = 3)
Years teaching gifted students	Mean: 7.27 years
	Range: 3–15 years

*Doctoral thesis submitted
**Some teachers mentioned more than one option

Data Analysis

In grounded theory studies, data collection and data analysis are processes that occur
simultaneously (Charmaz, 2014). Therefore, analysis evolved as data were collected and
interpreted. According to Charmaz (2001), "constructivists also view data analysis as a
construction that locates not only the data in time, place, culture, and context but also reflects
the researcher's thinking" (p. 677). For data analysis, Charmaz's (2006, 2014) guidelines
were followed in consideration of theoretical saturation and use of comparative methods.

Data analysis commenced in September 2017 and finished in September 2018, when the final theoretical chapter was organised. Data analysis was developed following different levels of coding: initial, focused, axial, and theoretical. This section describes the ethical considerations and procedures, explaining how the analytical stages occurred according to each data source.

Ethical considerations

Ethical issues emerged during different phases of data analysis. Table 2.8 presents these considerations and details how they were addressed during data analysis:

Table 2.8

Ethical Issues in Data Analysis Process

Timing	Ethical issue	How issue was addressed
Analysing data	Respect the privacy of participants	Secure storage of contact details (removed from data). De-identified data and assigning of codes before data were analysed
Reporting data	Avoid falsifying authorship. Do not plagiarise	Using APA 6th Edition style
	Respect participants	Composite stories were used. Individuals or specific group cannot be identified

Adapted from Creswell (2016).

Procedures

Using NVivo 11

Qualitative software NVivo 11 was used as a tool to organise and analyse data, memos and field notes. Strauss and Corbin (1998) argued that a "computer program can be extremely helpful in creating order out of a mass of field notes, interviews, codes, concepts and relationships in the emerging theory; and in keeping systematic track of the developing

theory" (p. 276). Charmaz (2000) considered that using software is more related to objectivist rather than constructivist grounded theory. However, she agreed with Strauss and Corbin, recognising analytical programs as a helpful tool for data management (Charmaz, 2000) because the "computer is now ubiquitous and so will be incorporated in diverse ways in all and any research project" (Bryant & Charmaz, 2010, p. 24). For these reasons, data were analysed using manual strategies as well as NVivo tools.

Data preparation

All data were de-identified before being analysed, assigning codes. Students' responses were recorded on Qualtrics, and then saved in pdf format using enumeration from 001 to 091. Additionally, letters A, B and C were assigned to identify the school of origin (e.g., A_001). Teachers' responses were coded using Roman numerals, and letters to identify the school of origin (e.g., A_I). Interviews were transcribed verbatim[9] by official transcribers to ensure quality and accuracy. All data sources were stored in NVivo 11. Finally, classroom observations were coded as 'Obs' followed by the teacher's code (e.g., Obs A_I).

Coding process

Charmaz (2006, 2014) suggested different levels of coding to analyse data. The following sections detail the processes used to code each set of responses in the chronological order in which they were collected. Additionally, constant comparison method was used at each level of analysis.

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[9]Verbatim was beneficial to keep the researcher close to the data, which is critical in grounded theory studies (Halcomb & Davidson, 2006). Additionally, transcriptions were helpful to ensure the accuracy of the data and data analysis.

Student responses—First set

The first 26 surveys were analysed using initial coding. Due to the responses obtained from the surveys, this coding process was conducted using word-by-word and line-by-line coding, with pdf files converted into Word documents to write the codes next to the data. Initial coding was conducted manually by creating labels, which were highlighted to facilitate the next step. The majority of these codes represented actions, being reflected by using codes with *ing* ending, as suggested by Charmaz (2014). After the initial coding, a table was created to identify the most frequent code and these provisional codes were used to adapt the interview protocol, which was designed at previous stages.

Additionally, a list was developed to organise student nominations. This list included the student identification code and the name of the nominated teachers. Then, in an Excel spreadsheet, student demographic information was summarised. Finally, surveys were stored in NVivo 11 and six nodes were created to organise the open-ended questions, which explained their nominations. These codes were conceptualised as: interesting teacher characteristics, learning environment, favourite teaching strategy, changes in thoughts or feelings, feeling inspired by or to, and for the last question, what makes a teacher inspiring. Post-it notes were used to organise the information, which were later transferred into NVivo using the concept map tool (see Appendix N).

Teacher interviews—First set

The first set of teacher interviews was also manually coded, by initial coding that followed a line-by-line style. The interview transcripts were saved as Word documents. These files were divided in two columns, in which one column had the transcript and the other column allowed space to write the codes next to the data.

In addition, focused coding was used to establish the adequacy of initial codes and to verify tentative categories. Initial codes were compared with data from the previous stage and with other codes derived from the three teachers' interviews. These focused codes provided a frame for analysis and for specific guidelines to conduct theoretical sampling. Member checking was conducted with each teacher, in which visual representations were discussed with teacher participant (see Appendix O). At this stage, tentative categories were created using NVivo to organise the data from this and the previous phase.

Student responses—Second set

The next 65 surveys were analysed using initial and focused coding, following the same procedure used with the first set of student responses. This process helped to continue with theoretical sampling, to identify tentative categories with incomplete ideas, and to provide guidelines for the next set of teacher interviews.

Classroom observations—First set

The first three classroom observations were analysed using focused coding. The protocol provided information to enrich the categories developed in the previous phases. This information was added to NVivo into different nodes. Connections with other sources of data were established using NVivo's 'memo link' and 'see also link' options. Additionally, the field notes were analysed using the same procedures.

Teacher interviews—Second set

The second set of eight teacher interviews was analysed using focused and theoretical coding. At this stage, analytic categories had emerged from data, and axial coding was used to relate categories to subcategories, with specified properties and dimensions. This coding

was used to ensure the strength of the categories and to guide the questions for the next interview, assuming an active role as interviewer with the aim of theoretical saturation. Theoretical saturation occurred when the eleventh interview was analysed and no new properties emerged in the last interview.

Classroom observations—Second set

This final analytic phase occurred at the same time as the final set of teacher interviews. It was important to confirm categories and properties, and to extend the knowledge about the field. Theoretical saturation occurred during the seventh classroom observation.

The role of memos

As mentioned previously, memos were critical for the analytic process. Memos were organised to clarify theoretical codes using diagrams, which displayed the categories and their theoretical links (see Appendix P). This theoretical sorting allowed the researcher to integrate the categories into an analytic story from a theoretical perspective, based on participants' experiences and understandings.

Developing the Theory

According to Thornberg and Charmaz (2012), "a theory states relationships between abstract concepts and may aim for either explanation or understanding" (p. 41). Interpretive definitions of theory give attention to interpretations and abstract understanding of meanings and actions, emphasising how they are constructed by people (Charmaz, 2006). From an interpretive perspective, the "theory assumes emergent, multiple realities; indeterminacy; facts and values as inextricably linked; truth as provisional; and social life as processual"

(Charmaz, 2014, p. 231). The theory (see Chapter 6) involved systematic procedures to ensure its theoretical strength and adequacy. The following sections explain the processes and procedures followed to move from initial to theoretical coding and the elements considered to present the findings.

From initial to theoretical coding

Initial coding provided the first approach to understand the data. These provisional codes contributed to the direction of data collection and provided the first guidelines for theoretical sampling. Following this process, focused coding supported the emergence of possible categories, which were finally collapsed to gain a more abstract understanding of the data. Memos facilitated the transition towards a more advanced and sophisticated level of coding and reasoning, moving from inductive to abductive cognitive logic of discovery and understanding. In doing this, memos and diagrams evolved, which facilitated an abstract understanding of the studied phenomenon.

By using constant comparison methods, it was possible to clarify the emergence of three main categories and their relationships. These main categories were identified as: *being a knowledgeable and passionate teacher, creating an academically safe learning environment,* and *teaching above and beyond the recommended curriculum.* As established by Charmaz (2006), developing a core category is not a compulsory step in grounded theory studies. However, in this research the core process emerged as a theoretical connection and explanation for the three main categories, which provided valuable analytical insights.

The theory—conceptualised as *Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students*—provided interpretation and understanding of the participants' experiences. Therefore, this core process was the central phenomenon experienced by the participants. The theory was explained in three phases: *expanding*

students' knowledge and understanding, fostering positive attitudes, and *encouraging students to take action.* These phases established clear links between the three main categories, which played a central role in the theory. This theory offers understanding rather than explanation and prediction (Charmaz, 2006).

Presenting the findings

The following three chapters provide a deep understanding of the three main categories and build the foundation to comprehend the core process presented in Chapter 6. To illustrate that these findings were grounded on data, participants' voices are used to illustrate the theoretical constructions. As these main categories are interrelated, some participants' quotations and conceptual ideas appear in more than one category. Some quotations were modified to facilitate the readiness, for instance by deleting interjections such as 'um' and long pauses; however, the meaning of the quotations were carefully retained. Additionally, data from gifted students' answers and teachers' interviews were prioritised as excerpts to exemplify the findings. Finally, the structural organisation of the following three chapters maintains the narration and flow of participants' experiences and understandings, which is why there are few subheadings.

Rigour and Trustworthiness

Based on Creswell (2007) and Lincoln and Guba (1985), trustworthiness in a qualitative study is acknowledge as a critical process. The criteria followed to achieve these requirements are presented in Table 2.9:

Table 2.9

Rigour and Trustworthiness

Criteria	How it was addressed	Reference
Credibility	Different sources of data and methods Rich data (verbatim) Member checking	Charmaz (2014) Creswell and Poth (2018) Hays and Singh (2012) Lincoln and Guba (1985) Maxwell (2015)
Researcher reflexivity	Methodological journal (to be aware of biases) Declaring previous considerations Peer review (supervisors)	Charmaz (2006, 2014) Corbin and Strauss (2008) Creswell and Poth (2018) Hays and Singh (2012) Maxwell (2015)
Transferability	Rich and thick description of research processes, context and participants	Lincoln and Guba (1985)
Reactivity	Reducing the researcher's influence (non-participant observation and online surveys)	Maxwell (2015)

Summary

This chapter has outlined the processes involved in data collection and analysis, and examined the elements that underpinned the selection of qualitative inquiry and constructivist grounded theory as the research design. A total of 91 Year 9–11students and 11 teachers from three secondary schools and programs for gifted and highly able students in Melbourne participated in this research. Students nominated 66 different inspiring teachers in an online survey. Interviews and classroom observations were conducted with the 11 participating teachers. Additionally, memos and a methodological journal were kept to reflect on data and procedures. Data were collected between August 2017 and March 2018, de-identified and stored in NVivo 11, and then analysed following Charmaz's guidelines (2006, 2014). Using initial, focused, axial, and theoretical coding, it was possible to discover the main categories

that emerged from participants' experiences. The process of theory development was

explained, highlighting the critical role of memos. The next chapter will present the first main

category.

Chapter 3: Being a Knowledgeable and Passionate Teacher

Chapter Overview

This chapter focuses on the category conceptualised as *being a knowledgeable and passionate teacher.* This category explains the processes and actions used by teachers identified as inspiring, who reported on their understanding of how they became knowledgeable and passionate, and how their disposition led them to perform their role as teachers of gifted and highly able students. This category is further explained through two subcategories: *becoming a teacher,* and *enjoyment and commitment to the role*.

The becoming a teacher subcategory emphasises teachers' experience as students and being outside of the field of teaching, their reflections on their role models and their formal and informal learning processes to become a teacher. The enjoyment and commitment to the role subcategory explains the expressions and implications of the teachers' knowledge and passion, highlighting the importance of their genuine excitement, enthusiasm and positive attitudes.

Becoming a Teacher

To understand these teachers as being knowledgeable and passionate, it was important for participating teachers to connect their past stories in terms of their personal and professional experiences, and the learning processes involved in becoming a teacher. The main source of information for this subcategory was the teacher interviews because the information was directly related to the teachers' personal and professional experiences, rather than a common experience with their students. However, a part of these experiences was shared with their students as a strategy to engage them. Students reported that they valued and enjoyed these stories, which helped to make classes more interesting and contributed as a

positive influence on the learning environment (see Chapter 4). Highlights from the students' responses that indicate this perspective included "I also like how she would take little 'story time breaks' to tell us some of her experiences which are relevant to the topic, making the class more engaging" (B_028); and "He also makes the subject enjoyable by adding relevant personal anecdotes, so students look forward to his class. This affects the environment, as students are willing to learn" (C_085).

Teachers' experiences

Reflecting on their stories led the teachers to connect their previous experiences as an important component in their teacher development process. These experiences were related to their live as students, the presence of role models, and their experiences outside the field of teaching. Having positive or negative experiences as students worked as a motivator to provide a particular kind of experience for their students. Positive experiences, such as having bright teachers or having a generally positive experience at school, worked as a significant motive to replicate those positive situations with their students, so they would enjoy their time at school. As this teacher explained:

> I just loved going to school, I loved hanging out at lunchtime with friends, I loved playing sports, I loved going on camps … I just enjoyed school, I just liked school. I wasn't one of the kids that—I mean there was still stressful times in Year 12 where you had lots of work to do, but you just get it done, and then you move on to the next day, and you hand it in and it's done. I didn't have too many times that I can remember that I didn't like—didn't want to go to school or didn't like school. Which is what I'm teaching for because I want kids to have the same sort of experiences at school that I had. (A_V)

Conversely, having negative experiences as students encouraged teachers to gain distance from those practices, which did not respond adequately to their needs as students or those that did not promote a positive learning environment (see Chapter 4). As emphasised by these teachers:

The thing I hated as a student was worksheets and I hated, I guess let's call it unfocused group work. I hated just being told to discuss things without a goal. So, I guess a lot of what I do is kind of a reaction against that, rather than here's a worksheet just fill in the spaces. I want to develop knowledge from scratch and I want to make sure any group work, they are just models like good team working in the real world. (A_VII)

I think if I look back on my own education, it's with some disappointment in terms of what we know now about education, and because—it's like what you said. Why do the kids enjoy my class? It's because there's that rapport and that feeling of—like you walk into a class, I don't think the kids fear anything, have any fear and they feel like there's a sort of connection and there's—I treat them as equals. My schooling wasn't like that. You know, we're talking about … a long time ago, and the teachers were very—it was us and them. I had some really friendly teachers. But in the end, I always felt a little bit scared of them. (C_VIII)

In their academic lives as students, these experiences influenced how teachers developed their individual approach to teaching (see Chapter 5), as well as the importance they attributed to the fact of being teachers of gifted and highly able students. Many teachers recognised themselves as excellent students in one or more subjects, although not explicitly as gifted or highly able students. Their student experiences facilitated a deep understanding of their students' learning needs due to similar experiences lived in their school time: "I just

liked learning. I don't know that I was necessarily a SEAL kid for want of a better term, I was reasonably good at school. I found school pretty easy in terms of maths especially, was always pretty easy" (A_V); and "I was one of the smart kids. I never felt gifted. I think I'm smart. I would say that I worked really hard at school, I work really hard now to get to the same level" (C_VIII).

Additionally, having different role models who influenced their lives substantially was considered a major experience for most of the participating teachers. These role models were related to them as teachers or family members. Having teachers who were positive role models contributed to their understanding of the effect that they could have as a teacher in terms of engagement, motivation and the attitude that students develop towards their school subjects. Moreover, these role models helped them to discover their interest and passion for a specific area of knowledge, and in some cases stimulated their interest in becoming a teacher:

> I had a Year 11 teacher who taught me classical history. I did all sciences pretty much when I was in high school and then decided to do an arts degree but I definitely had a teacher who was amazing and just made me love history… And when it came to thinking about what I wanted to do at university … I was like, oh, I loved history. I was good at science but I love history. I should go and do that, what I love, not necessarily what I'm just good at. She was definitely an inspiration and I like to think—I like to hope that's what my students will think sometime, or some of them will think. (A_II)

Conversely, having negative role models helped teachers visualise the distance they wanted to be from them, and reflect on the negative consequences that bad teaching can have on students. As Teacher B_IV mentioned, negative models might change students' feelings for the subject negatively, and this could be an irreversible consequence. This teacher also remarked that an inspiring teacher could re-engage students after a negative experience.

Having negative role models was also understood as a motivation to become a different kind of teacher:

I had one [teacher] in Year 9 who really, it was the first time I ever thought that maybe teaching would be for me because I wanted to be a teacher completely opposite of what she was. She was not a good teacher... I went from loving mathematics and feeling really comfortable to hating going to that class and then I was lucky enough in Year 12 in methods, which is not an easy subject and even though I'm good at maths I still really struggled with it. I had a teacher who was everything that inspired me to be as a teacher, and she was amazing and passionate for teaching, before she was passionate for mathematics, she could talk to you on the same level, she wasn't talking to you like I was beneath her or anything like that, she was speaking to me as a person … I learned so much off her, she was definitely the main reason I became a teacher. (B_IV)

Finally, growing up in an environment in which education was part of daily conversations seems to have enabled teachers who were considered inspiring by their students to embrace teaching enthusiastically and to use their experience as a valuable source of knowledge. As Teacher A_III described:

About 80 per cent of people in my family are teachers. My father was an amazing primary school teacher, and my oldest brother is a high school mathematics teacher and my sister-in-law is a primary school teacher. Three aunts on my dad's side are teachers and five uncles and aunts on my mum's side are teachers. So, there's teachers all the way through, and I think that absolutely means that from when I was really little like education and learning and how people learn it's always been a part of my family and conversations and family Christmas. (A_III)

These experiences with teachers and family members created significant models of teaching approaches and expectations for their own roles as teachers. These experiences helped to shape the impressions that they could have on their students, inspire their passionate learning for a field of knowledge and to facilitate their interest in becoming a teacher. This was supported by Teacher A_III:

> Probably my dad was the biggest teacher influence because his commitment to teaching and his commitment to his students … So, I guess just him modelling that and seeing the amount of preparation and marking that he would do for his students, and that he valued that work for them I guess that had a big impact on me as a teacher, and what I believe about students and learning but also the way that I teach or the way that I prepare for learning. (A_III)

Some of the teachers had previous work experience in different fields in which they had been successful and in different stages of their lives outside or prior to their teaching. Teachers concluded that an important part of these experiences were related to their teaching, to the subject they were teaching or were relevant for the development of important teaching skills:

> I bring vast amounts of life experience, relevant life experience, to the topics that I teach. I've been teaching for eight years and I started teaching at the age of 34. So, I had a long time of doing some crazy things before that. Lots of biology related stuff but in very exciting scenarios. (A_I)

> I also did a lot of public speaking for about 10 years before I came to teaching. So, I was used to getting up on a stage and having to project myself, you know, which is not to say that I always enjoyed it. It's much less stressful being in a classroom than it was doing those other things. So, I guess that I am used to projecting myself, you know, on a public stage and I've just brought that to teaching I suppose. (C_XI)

These experiences contributed to their decision to become a teacher. As previously mentioned, some teachers had positive experiences, which enabled their development of important skills that they used to improve their teaching practice, and knowledge about a particular field of study. In some cases, this contributed to an early understanding of their joy in their teaching and learning. From this previous career experience, becoming a teacher was a formalisation of those earlier experiences:

> I love teaching, I've taught since I was 12, I was tennis coaching little kids at 12. I've run sports and I'm coaching football teams and tennis teams and cricket teams as well outside of school with my own kids. I don't know, just something I've always liked doing. I always figured I'd be a teacher from aged sort of 12 when I started coaching and liking it. I figured I'd end up being a PE or a maths teacher or something, it's just what I've always done. (A_V)

In other cases, some teachers found their earlier work experiences outside education lacked satisfaction, which increased their motivation to do something different and related more to their interests. This was explained by Teacher A_V:

> I love teaching people, I like talking to people. I did work when I came out of uni for six months in an office job and just hated it. So, I was sitting at a desk and doing reports and things and I hated it. So that sort of confirmed, I did that because I wanted to try something more associated to my initial degree, which was maths and economics. But yeah I wasn't probably really invested in that anyway because I sort of knew I always wanted to work with people rather than sitting in a desk.

These teachers' experiences were regarded as a valuable source of interest and respect by their students, who appreciated their teachers' decision to become a teacher despite other possibilities they had. As one student mentioned, "Somehow, through all the experiences they

had and all the paths they'd walked down, they have chosen to be here, in a classroom,

teaching me and 20 or so other teenagers" (C_084).

Learning to be a teacher

Further to these experiences, which contributed significantly to the learning processes

of becoming a teacher, other important sources of learning were explained by the teachers.

Despite the fact that all these teachers had a qualification for teaching, they acknowledged

that their learning to become a teacher originated from different formal and informal

situations.

Within formal learning processes, teachers mentioned that their teaching

qualifications and constant professional development were critical to their learning. Teachers

mentioned that they experienced positive and valuable learning situations in formal

environments. However, most teachers agreed that their teaching qualifications were not

always enough to become an effective teacher, specifically to address their gifted and highly

able students' needs. This demonstrated their critical perspectives of their teaching and

learning experiences, specifically in terms of learning how to interact with the students:

> So, the fact that was missing so much from my teaching qualification I think is a
>
> shame because they gave me the foundations of what I had to do to physically control
>
> a space and have a curriculum but that by itself was totally inadequate to meet the
>
> needs of, especially of my gifted students…I've been really consciously trying to
>
> learn that along the way but I also feel like that shouldn't be an afterthought and it
>
> shouldn't be something that we have to do by ourselves, that should be the core work
>
> of teacher preparation because if you can't do that you can't teach. Like you might be
>
> in a classroom and 25 kids might be in a classroom but there is no learning happening

in which case you're not teaching, you're doing something but you're not teaching.
(A_III)

Professional development was seen as a critical source of learning. Some teachers defined these instances as options to learn new content, skills and develop abilities, as well as opportunities to learn and apply new ideas and strategies to their teaching:

It's just about stealing as many things as you can. The more PD you go to, the bigger the pool of things you can steal is. So, I think basically the role of PD as with any other learning is just to be exposed to new ideas, that really for me is the thing. (A_V)

Some professional development was organised by their schools, which provided valuable opportunities for their learning. Nevertheless, some teachers mentioned that they would like to have more opportunities and freedom at their particular school, to select specific professional development opportunities according to their needs because this would be more helpful and they could optimise their time:

I think at times the PL that's offered is offered to everyone but not to their point of need. I sit back and learn a lot about IT stuff which I already know, or I sit back and listen to wellbeing stuff that I'm already on top of. So unfortunately, I haven't been getting much out of the PL, we do get encouraged to go external and find our own PL, so I've done a lot of wellbeing PDs lately but none from a classroom teaching point of view because I feel that I know I can get better. I know I'm not the best teacher I can be but right now I'm concentrating on improving the wellbeing side of my job over the classroom teaching because I think that's going to help with both. (B_IV)

I try to go to professional development, but I am pretty fussy about what I would go to and I go to say VCE conferences or IB workshops where I feel that they really do help you with where you need to get your students to. (C_IX)

Teachers also explained different informal learning situations that helped them to improve their teaching practice and style, such as their experiences outside teaching, role models, and informal reflective practices. These reflective practices were helpful to receive feedback, to adapt their classes, and to evolve as teachers according to their own reflective processes, as they considered it a key practice. Some of them reflected with their colleagues, although a lack of time presented an important challenge for reflective practices:

> I walk out of every class saying to myself how did that go? Like did they learn what I wanted them to learn and, did they enjoy the class and are they going to be looking forward to the next class and, did I engage them in the topic that it became something that they're really interested in? I'm constantly asking myself that and, modifying, my approach for the next class in order to address those things. (A_I)

> So much of what I do now I think, like a whole range of things like honestly … like trial and error is just a big part of becoming a teacher and being reflective so I ask them for feedback a lot. I also sit and try and work out for myself well when were the times in the lesson when they were most engaged and where the quality of their work was increasing and when were the times that they were off topic and not focused and maybe they had a lot of fun but there was nothing valuable that came out of that task. (A_III)

According to the teachers' experiences, gifted education was located in between their formal and informal learning experiences. Some teachers had formal learning experiences, such as Master's studies or specific professional development regarding characteristics of gifted and highly able students, teaching strategies, and how to address their educational needs. Some of these learning opportunities were organised by their schools and they were considered important and critical learning experiences:

So, there was some good professional development talking about things like the difference between gifted and talented students, how to engage gifted and talented students, how to ensure that you kind of get that balance between not pushing them too hard to the point where they are stressed out, but not letting them just coast through because they're accelerated, and then coming to this school …. There's been a lot in school professional development and meetings and things like that and even when we have particular meetings, they are focused on gifted and talented students, but even just regular curriculum meetings where it's differentiated between we're going to do this for mainstream and this for the SEAL. I've found that really beneficial in kind of clarifying in my own mind. (A_II)

However, a group of four teachers had not experienced any formal learning on gifted education. This was acknowledged as an important limitation that they would like to address, as Teacher C_XI discussed, "I've actually got as one of my goals for—um, for this year and the next couple of years to work on how to challenge my brighter girls more" For teacher participants, this highlighted the important role of formal professional learning opportunities in the field of gifted education to enhance the effectiveness of their role as teachers of gifted learners.

Enjoyment and Commitment to the Role

To understand how being a knowledgeable and passionate teacher resulted in being considered inspiring by gifted and highly able students, it was important to know how these teachers performed their role as educators. This second subcategory provided understanding of the teachers' characteristics and the approaches used to perform their role as teachers of gifted and highly able students. Students and teachers referred to various attributes and their

interpretations were consistent. All of these attributes were related to the identification of these teachers as being knowledgeable and passionate.

Being knowledgeable

Participants understood that teachers' knowledge was a critical attribute to be able to teach and inspire gifted and highly able students. Students valued this characteristic in two different ways—knowledgeable as being expert in a particular subject and knowledgeable as having a broad understanding of a wide range of topics. Knowledge and curiosity enabled the teachers to make connections and to present learning topics from innovative perspectives. Teachers' knowledge worked as a motivation and as a model, which triggered students' interest to expand and delve deeply in their own knowledge of a particular area of study, as highlighted by these students: "His knowledge about numerous subjects, and perspectives, his ability to incorporate elements of numerous subjects into one" (A_031); "He has a very inquisitive mind—he can see things from many different perspectives—he is very knowledgeable about his subject" (B_034); and "she gives me a feeling that she knows everything about her subject. This really inspires me to gain more knowledge on my passion and to learn new information simply because of curiosity and not because there is an upcoming test" (C_081).

Participating students valued that these knowledgeable teachers did not make them feel inferior, which emphasised the importance of having a respectful relationship, feeling appreciated and valued by their teachers (see Chapter 4). As Student A_055 explained, "His curiosity to learn new things, his quirky attitude, how he dragged his other interests into our classes, how smart and knowledgeable he is without making you feel inferior."

Additionally, students valued teachers who shared their deep knowledge of content with enthusiasm and passion. As this student explained, "Their knowledge was, of course,

immense; however, it was their visible willingness to share it and investing themselves in the student's wellbeing which made them stand out" (B_033).

Participating teachers also considered themselves to be knowledgeable teachers. Teachers who knew their subject matter and who showed confidence while teaching were able to challenge their gifted and talented students. As these teachers discussed:

So, when a kid finds something easy, I can say, okay, what about if we make this negative here instead of positive. Then they'll go oh that was more difficult or something. But that comes from I think—from my point of view, experience of seeing so much of it over the past few years. (A_V)

So, I know it well and therefore I go in with no lack of confidence about my content knowledge. And I think that when you have that ability to share that, and you know your subject really well, you can challenge kids. (C_VIII)

I'm prepared for them like … I obviously know my content quite well. I took my studies very, very serious. I was an obsessive student, and the range of examples that I have in my head, they're just in my head. Like, I prepared from that point of view. (C_X)

Subject knowledge and the related experience were important reasons to gain students' respect, which positively influenced the students' appreciation for their teachers. Students valued teachers' experiences: "When you've had some sort of solid life experience and you've become a teacher now they respect that decision to become a teacher. They're like oh you just didn't just become a teacher. You wanted to actually impart this" (A_I).

Additionally, students valued when teachers honestly acknowledged that they did not know specific content or the answer to questions. Teachers considered that students were able

to easily identify when they were competent in their content knowledge and considered it important to acknowledge when they did not know a specific answer without losing the students' respect or validation. Students valued their teachers' curiosity and desire to know or to expand their knowledge through their questions. This situation was also used by the teachers as an opportunity to model certain behaviours, to demonstrate to the students that it is not possible to know everything and encourage their students to expand their own knowledge by looking up new answers in different academic resources and by learning together. Student C_074 explained, "She is also incredibly knowledgeable in her subject area—and whenever she doesn't know the answer to a question we ask her, she actually goes away, researches it and returns to us with her findings." This was also mentioned by the teachers:

> They question why all the time and they won't, like if I don't know something and I pretend, they would see through it and they would lose some respect for me in that context so if I don't know something I just say that, that's an amazing question I hadn't even thought of. I love that you've asked it, we'll find out the answer, but I don't know right now, and I think that's important too because that's what I would want from them. (A_III)

> If kids come into the maths office and they ask me a question I'm like oh this is methods, I haven't seen this in a while, we'll go ask someone else and I'll stand there, I don't just pass them off to another teacher, I stand there and learn it as well, so they can see that learning growth is happening. (B_IV)

Being passionate

In addition to being a knowledgeable teacher, students emphasised that inspiring teachers were also passionate. This passion was described in two different and interrelated ways—being passionate about the subject or content area and being passionate about teaching, as mentioned by Student B_062, "Teachers are inspiring when they are passionate about the subject they are teaching, as well as passionate about teaching it itself and sharing their knowledge with other people."

Participants focused on different dimensions to explain teachers' passion. For students, being a passionate teacher was related to the love and enthusiasm that these teachers expressed for a particular area of knowledge, as well as to the enjoyment that teachers displayed when teaching. As stressed by these students:

> Their expansive knowledge of the subject (maths), their boundless joy at specific
> things of maths (which is a subject that normally teachers would find to just be an
> ordinary, nothing-to-be-excited-about subject). (A_066)

> She was very enthusiastic to be at every class, and it seemed that she loved what she
> was teaching. Her interest in science came out when she spoke to the class. She was
> bubbly and made class interesting and an enjoyable experience. (B_056)

Students appreciated teachers who showed enthusiasm and enjoyment of the subject matter. This increase their enjoyment of and interest in the subjects. As these students suggested: "Interactions are like the ideal student–teacher relationship, where the teacher is very enthusiastic to teach and students are very keen to learn. This enthusiasm from the students is heavily due to the influence of her passion towards biology" (B_028); and "She always gets so excited about what we're learning and there's really no other word to describe it than contagious" (C_071). Some students acknowledged that teaching in a passionate way

was evidence of teachers' knowledge, competence and enthusiasm, as this student suggested, "She was always passionate in her teaching, and the way she teaches exudes her knowledge, competence and enthusiasm" (C_074).

Additionally, students remarked on the importance of the genuineness of their teacher's passion. Teachers' interest and love for their subject and teaching it was seen as evidence of their enjoyment for their job as teachers. Students emphasised that "there are a lot of characteristics to appreciate about this teacher. Firstly, his genuine interest in the topic is extremely evident" (C_072); and that "she is a teacher who has the surprisingly rare ability to genuinely and consistently love what she teaches" (C_074).

These inspiring teachers also identified being a passionate teacher as an essential feature. They recognised the two dimensions mentioned by the students—being passionate for the subject and content area, and being passionate about teaching. Their passion was described as related to their knowledge, love, and interest in their subject, being important catalysts to improve their understanding of their domains of learning and as a motivation to maintain their knowledge:

> I love my subject, and the content of my subject is constantly evolving and changing
> and that makes it really inspiring to teach, and I try really hard to keep up to date, but
> it's impossible because biology is constantly [changing]. (B_VI)

The relationship between knowledge and passion was strong for teachers and some conceptualised these two ideas as part of the same process in which passion and knowledge were part of a cycle, which made it difficult to see the difference between these two concepts. As Teacher C_X explained:

> I think that they're almost the same thing, though. I think that if you looked at kind
> of … if you did some sort of study as to kind of … You know, the correlation there,
> they would be … They would agree. They would strongly agree with one another, in

the sense that you know something well, and therefore you're passionate about it, and therefore you want to share that passion. So, you're interested in teaching because you love what you do. They're the same thing. I think that there's zero difference between.

Teachers described a wide range of behaviours in how they expressed their passion for topics and for teaching. These descriptions displayed the difficulty in theoretically separating their passion and enthusiasm for the subject from the passion for their teaching, demonstrating how strongly related they were. Teachers described two main interconnected methods through which they expressed their passion—their excitement and enthusiasm when teaching, and how they explicitly communicated their love for their subject and for teaching it.

First, the teachers' excitement and enthusiasm when teaching their subjects were expressed through their voice, language, energy, and positive feelings used to emphasise particular content, to present ideas, and to express their own perspectives. As mentioned before, these positive characteristics were also transferred to their students as a contagious or energising feature. Playing with their voice in terms of volume and tone was an explicit way to express how passionate they were towards a particular subject. In some cases, this was used as a deliberate strategy to keep students' attention and to engage them in the content of the subject. However, in other situations, their voices were a natural and unique expression of their authentic passion for the content or for their excitement when sharing particular knowledge with their students. As this teacher mentioned:

I suppose I look enthusiastic when I talk. I'm conscious of that—and this goes back to a bit of all the public speaking. You can't just speak to a class in the way that you would if you were talking to—as you and I are talking. You have to actually project

enthusiasm. But I don't think about that a lot. I think I'd probably just do it naturally.

(C_XI)

Other manifestations of teachers' passion included the use of a particular kind of language, which was also attractive and newfangled for their students. For instance, using aesthetic language in maths classes was seen as a way to display and describe how important and connected the teacher was to the topic being taught:

I'm quite colourful in the way that I describe what I'm doing. So, I'll often use adjectives that aren't familiar to them. Like you know, I said that I'll describe things as being beautiful or what have you, but also kind of horrid, as well. Like, I'll use very strong kind of language to describe what I'm doing, or what we're doing, what we're looking at. (C_X)

The teachers' energy levels appeared as an irrefutable expression of their passion. Being excited about the content and for the opportunity to share that knowledge with their students were seen as valuable sources of motivation to keep students engaged. This again demonstrated the difficulty in separating the teachers' passion for the subject being taught from the teaching. This lively interest was also reflected in the use of language and the choice of specific words to show excitement:

If I'm talking about stem cell research I don't say oh, you know, 'So, current legislation says that blah, blah, blah'. I say things like, 'This is crazy that you can't sort of like use excess embryos from IVF because people are saying that it's a living, breathing person and you can't do this lifesaving research on them'. I get like fired up about what I'm teaching. (A_I)

Second, these teachers explicitly expressed their love for their subject and for teaching it. They communicated this fascination in their learning to their students to help them understand the importance of the subject, its academic value and to help them to

imagine all the possibilities they could discover through this particular subject. Further, language was a means to engage students in the subject's content, reflecting and displaying the teachers' interest and passion for what was being taught, developing a positive attitude and disposition in the students to learn the particular content:

> The first lesson with a new group of students, the first thing I do is I congratulate them for choosing biology, I tell them they've chosen the best subject, I tell them that I've had a lifelong love affair with biology and I'm really passionate about my subject and I say to them, if I wasn't passionate about my subject that wouldn't be a good thing would it? so I tell them—I'm really upfront about it and I like to try and instil that enthusiasm and passion right from the very first lesson. (B_VI)

> I love my subject, I want to share it with you, and I want to empower you. I say that to the girls in the very beginning when they start this subject. This is a subject to empower you as women and that's really important to me. (C_VIII)

These two ways of teachers expressing their passion in relation to their teaching had a significant impact on students. As mentioned before, students acknowledged that having a passionate teacher was important to keep them engaged and motivated to learn in a particular domain even beyond the class and the expected curriculum. These ways of expressing teachers' passion contributed to the perception of teachers as role models. Some students expressed their interest, engagement, and desire to become passionate about a particular topic like their teachers. This worked as a trigger to spend more time learning about the content and to visualise new options for their future:

> While I have always had a keen interest in history, it was only after having him as a teacher that I began truly engaging with the subject. History became something I

pursued and my family definitely noticed that. I even got a book by William Shirer (a

famous historian) for my birthday! (C_067)

Motivation, positive attitude, and hard work

Additionally, other important features used to understand the teachers' enjoyment and

commitment to their roles as teacher of gifted and highly able students were the role of

motivation, their positive attitudes, and their hard work and effort.

The role of motivation was understood in three different but interrelated ways. First,

students described these teachers as highly motivated in teaching their subjects, which was

closely related to teachers' passion. This motivation was evidenced in how they taught their

subjects, as well as in the high levels of effort that students witnessed teachers put into their

work. Being passionate and highly motivated for the subject and for teaching it worked as a

motivator for students, who responded by being keen to do their best in a particular subject.

As Student C_076 explained, "his real interest in his own topic and belief in its importance,

as well as the immense effort he obviously puts into teaching us, allowed me to really gain

the motivation to want to excel in his class."

Teachers used motivation as a strategy to engage their students and to keep their

engagement through different methods. These methods included connecting current content

with students' futures, telling stories, providing positive messages, and empowering the

students (see Chapter 5). Connecting the content studied in classes with the students' futures

was a practice that students valued as it helped them to imagine options, to show teachers

their enthusiasm, and to foresee future connections and learning possibilities in their areas of

interest (see Chapter 5). As Teacher A_II mentioned:

Not everything is just going to be handed to you and that we're trying to build up a

skill, not just learn history and memorise dates but we're trying to build a skill that

will help you and often—particularly in this semester, often I say things like, this will help you in science when you have to write a report, or this will help you when you're doing an experiment and you're a doctor and it's not working.

Telling stories was also a motivational strategy used to engage students with the class and the content. These stories were engaging and relevant narratives about themselves, the content, or former students (see Chapter 5). These stories made connections between past events and the students' future, illustrated new possibilities, opened new options for their students, and facilitated the identification process with the protagonist of the story. Students explained: "She's always telling stories which engage the class the whole period and make history really interesting" (A_023); and "She would often share stories of her travels, which were inspiring especially in a geography classroom" (C_085). This was also observed in different classes, for instance:

Teacher made a connection between the experiment that students were conducting with a well-known disease (diabetes). To make the connection clearer, she shared some stories about a family member, who was diagnosed with diabetes. She explained some daily situations and issues, and students started making questions and developing hypotheses, connecting the theory, their practical knowledge and the story the teachers told them. (Obs B_VI)

Providing positive messages was an important strategy used by these teachers to keep students motivated, to encourage them, validate their hard work, and to promote their curiosity. These messages were provided to acknowledge and encourage their questioning behaviour, particular approaches to face a specific task, and to let them know that the teachers valued and cared them as their students (see Chapter 4). As Student C_081 expressed, "She is very friendly with students and if students are disappointed (e.g., with test marks), she will actively try to cheer them up" (C_081). This was also observed during

classes, as this field note registered, "When a student responds teacher says 'Perfect, that's exactly what it is. Well done'. Even once, he said 'that's the best answer I've received for that question ever!'" (Obs B_IV).

Teachers had high expectations about their students' future as important contributors to social progress. These teachers aimed to contribute to their students' development as good citizens and to empower them to provide the skills needed to succeed in their future multiple roles in society:

> For this elective, there was a lot of group work, there's a lot of structured group work. It might be for one project I assign a leader for the team, I assign specific roles and they just have to execute and deliver as a team. So, this subject was basically intended to be fairly cross-curricular. We were kind of trying to model the way, I guess, like modern tech-type industries would work. So, lots of, kind of break outs, lots of teamwork, lots of online collaboration, all that sort of thing. (A_VII)

Additionally, the teachers' motivation, effort, and interest in the area of knowledge enabled them to be considered role models for their students as they motivated the students to excel. Additionally, as it is explained at the end of this chapter, students were motivated to work hard in response to their teachers' outstanding efforts, as these students discussed: "I enjoyed maths with this teacher both years that I had him. I hold him as the golden standard for teachers" (A_032); and

> She always seems excited to discover new interpretations of the texts she teaches and that shows an important attitude she herself has to learning; that there is no end point, and that it is a process that continues even after one has become the teacher. (C_074)

The role of teachers' motivation was critical to encourage students' intrinsic motivation and promote the value of learning over results. This was mentioned as a challenging task, as teachers were aware of their students placing value on their results

because they knew how important they would be in their future when it was time to choose university courses and consider careers. Being a highly motivated and passionate teacher, keeping students' engagement, and acting as positive role models were strategies that promoted the intrinsic value of learning, the gratification of understanding complex content, and increasing students' interest to spend their personal time in learning a particular area of knowledge. Student C_084 explained:

> She inspired me to spend more time reading up on some issues. Particularly when we did topics like tourism, sustainability, and gender inequality. I found myself reading articles on different topics in my own time. Maybe it's because she seems so informed on different issues it inspired me to take an interest myself. I suppose I want to be as informed on the real world and real issues as she is.

Students perceived their inspiring teachers as being positive about their teaching, their content, and their pupils, and these elements were perceived as important features to understand teachers' enjoyment and commitment to their roles. This positive attitude was evidenced in teachers´ keen interest to be sure that every student understood their content and in their high-quality performance as teachers to promote learning in a deep way. Additionally, students valued their friendly manner, their uplifting attitude towards the class and their enthusiastic approach to teaching. These teachers were kind in the way they approached the class and constantly encouraged their students to participate actively in class because it was a safe place. This positive attitude had an important place in the creation of an academically safe environment, as described in Chapter 4, as well as in the development of their friendly relationship with their students (see Chapter 4). Students highlighted: "He has a fantastic attitude in class (wants us to learn) and is very friendly" (A_038); and "Her kind personality and attitude draws me into her classes and encourages me to participate in class discussions" (C_082).

Finally, the teachers were willing to put in extra effort to help their students. This was explained as evidence of their love and passion for the subject and their teaching. Working hard to help their students was perceived as a way to support them and as evidence of their belief that these students deserved this extra effort. It was also seen as evidence of how they used their knowledge and displayed their passion for teaching and for the content. The teachers did not perceive that doing extra work was a sacrifice. They had a positive attitude about sharing their knowledge with students who wanted to go beyond the class requirements. This was positively influenced by students' characteristics and how they reacted to the teachers' efforts:

> She was extremely conscientious and hardworking. She always went above and beyond what was required of her role as a teacher such as providing us with extra resources to look at to improve our French and being very detailed when she taught us grammar. (C_075)

> I've always felt that I've put in a lot more extra effort than I potentially needed to, I could go to a school around the corner and get by just doing an 8.00 to 4.00 job and not take anything home but I've always said that these kids deserve it. They're amazing kids, they're polite, they're respectful and it's not just because they're smart, but it's because they really want to and they appreciate it. Whereas if they were just smart and treated me like dirt I'd probably be less inclined to do something. They are really good kids and I love my job and I love teaching and I think that really makes it a lot easier to put in that extra effort um to work through lunch or to meet with kids before school at 7.30 if they're having a bit of trouble. They'll come in and I'll stay with them or I've stayed back till 6.30 at night helping certain students at times because they thank you for it. (B_IV)

Students valued the efforts that these teachers made to help them achieve their goals and they understood it was an iterative process. The high-quality work done by teachers was perceived as evidence of hard work and effort through presenting outstanding material, being clearly well prepared for teaching, spending extra hours and personal time in helping students, and providing thought-provoking lessons. Students were fully aware of their teachers' hard work and wanted to express their gratitude by responding in a similar way, making efforts, and working as hard as their teachers (see Chapter 4). These students explained:

> She was the kind of teacher that motivated me to try my best in the subject because I didn't like the idea of her marking my paper and seeing me get a bad score. I wanted to show her that I am capable and can succeed in her subject, and that I was 'worthy' of being a Year 10 doing a 3/4 subject. (A_041)
>
> His real interest in his own topic and belief in its importance, as well as the immense effort he obviously puts into teaching us, allowed me to really gain the motivation to want to excel in his class- since he works so hard on us, I want to be able to repay that through expressing his talent to the school via achieving a high level of success in his subject. (C_076)

In conclusion, students acknowledged the features mentioned above as critical when considering teachers who inspired them. They also mentioned that some of these characteristics and practices were—in their experience—unique to these teachers, and highlighted their previous work experience, the relationships developed with the students, and their expertise in teaching their subjects. Teachers identified as inspiring seemed to genuinely love their job, and this love and passion indicated their enjoyment and commitment to their role as teachers of gifted and highly able students.

Summary

This chapter has outlined the category conceptualised as *being a knowledgeable and passionate teacher*. It explained how these teachers of gifted and highly able students became knowledgeable and passionate, and how these characteristics ascribed them as being inspiring to their gifted students. The becoming a teacher subcategory emphasised teachers' experience as primary and secondary students, experiences with their families, as well as work experiences related to the field of teaching, and experiences outside this area. Teacher participants also reflected on their learning with different role models as positive or negative experiences, and their formal and informal learning processes to become a teacher, such as qualifications and learning outside a classroom. The enjoyment and commitment to the role subcategory explained the expressions and implications of the teachers' characteristics to perform their role as teachers of gifted students. This subcategory highlighted the importance of teachers´ knowledge, as expertise within and beyond their subject area; teachers´ passion for the subject and teaching; and the importance of their genuine excitement, enthusiasm and positive attitudes. All of these elements were presented in relation to their impact on students' future, learning, engagement, and deep understanding. The next chapter will present the second main theoretical category—*creating an academically safe learning environment.*

Chapter 4: Creating an Academically Safe Environment

Chapter Overview

This chapter focuses on the category conceptualised as *creating an academically safe learning environment.* This category examines the considerations and strategies used by the teachers identified as inspiring to create an optimal learning environment for their gifted and highly able students. This category is further understood through two subcategories: *demonstrating understanding of students' characteristics,* and *developing a positive learning environment.*

The first subcategory highlights the characteristics that teachers identified as inspiring acknowledged and valued by their gifted and highly able students, and the strategies used to address the identification process of gifted and highly able learners. The second subcategory emphasises the development of a positive learning environment, in which building constructive relationships and classrooms atmospheres, and positioning learning and enjoyment as the main educational aims, contributed to the creation of safe learning environments for the gifted students to develop their talents.

Demonstrating Understanding of Students' Characteristics

Teachers identified as inspiring were interested to know more about their gifted and highly able students and demonstrated acknowledgement and understanding of their characteristics in two different ways. They were interested to know their gifted and highly able students in academic terms, and some teachers were also interested to know about their students' lives beyond school.

Knowing the students within the academic context was considered a fundamental task as teachers gained better understanding of their learning approaches, academic interests,

passions, concerns, and work styles, as well as the meaning and implications of being

identified as gifted and highly able students. With this knowledge, teachers provided

adequately for their gifted and highly able students, addressed their needs, and provided

opportunities for every student:

> Some of them won't really want—or can't articulate what they want or need. So,
> some students will say, things like, ah, I can't write paragraphs, I need a template and
> so that's quite easy. Often I do a lot of school structured individual learning plans and
> things like that. I often do a lot of reading about the student beforehand, before they
> walk into the classroom for the first time. Communicating with their coordinators or
> past teachers, particularly for students who I've noticed are really struggling or are
> really far ahead of everyone else. (A_II)

> I think in terms of learning some of the strategies, I try to mix up the way we learn.
> So, um, I really hate kind of the chalk and talk, the whiteboard, the power point and
> that … Every lesson I find it's boring. Sometimes it's needed, particularly if we're
> learning a new writing style, but I try to mix it up a lot to keep—and so that every
> student gets a chance to kind of shine in an element they like. (A_III)

Some of these teachers were interested to know their students' lives beyond school

and had conversations with them about their personal lives or topics not directly related to

academic work. Teachers who did this considered these interactions to be a critical way of

building positive relationships. Additionally, these teachers were not concerned about

missing valuable teaching time or losing control over the class while personally interacting

with their students because they knew that these students were able to switch back to work

easily:

So that I think help builds a relationship with them as well, in that I can show an interest and be interested in their stuff outside of the classroom, but then still say guys, okay time to get back to, time to get back on to work now, and they just switch back on to work. Which I think obviously helps with the relationship with them as well because I'm interested in their life, and what they're doing with their older brothers or sisters, or their parents, or their sports team outside of school, or what they're doing in production, or whatever it is. (A_V)

Three male teachers preferred to keep their relationships with the students within school boundaries and avoided personal conversation about topics beyond the school context. This was related to different teachers' personalities and teaching approaches. With this kind of interaction, teachers were able to build positive relationships with the students, who acknowledged that they had encouraging learning environments and positive relationships with their teachers. These positive relationships were established based on academic interactions, which required a certain level of knowledge about academic interests or passion for a particular content or subject. Teacher A_VII explained:

I try to build relationships, but the relationships I think are built through mutual appreciation for the work or mutual love of the subject or enthusiasm or whatever else it is. It is almost never a personal connection. So, I don't really know what they do on the weekend, I don't know who their girlfriend is, I don't really care to be honest. I'm pretty focused just on the work and building the relationship through that sort of connection.

Knowing their students helped these teachers to acknowledge the diversity among them, and to be prepared to provide effectively for their educational needs. These teachers valued and enjoyed their students' different approaches to learning and their different learning potential.

In a SEAL class, the thing that I find is far more varied than in mainstream classes is learning styles. Whether they're kinaesthetic learners who really need to be hands-on, whether they're verbal learners who have to talk it out. You know whether they're visual learners and they have to see it to understand it, and any other number of a range of learning styles. (A_I)

Well, everyone's different and that's the beauty, that's the thing I love about teaching every single year, every single day you step into a classroom you're going to have something different. I've got students that are extremely outgoing and are very warm students straight away, and I've got ones that are very standoffish and I love those students as a challenge because by the end of the year I always have tried to build that relationship with them, they're very, obviously they're very driven being in a place like this. (B_IV)

Characterising their gifted and highly able students

Despite the diversity among their gifted and highly able students, teachers identified as inspiring were able to conceptualise five main and interrelated students' characteristics. Teachers acknowledged that their gifted and highly able students were highly motivated, hardworking, well-behaved, inquisitive, and smart.

Teachers acknowledged that their gifted and highly able students were highly motivated learners, who wanted to improve and become even smarter. Students' motivation was expressed as an intrinsic motivation for learning, as teachers described the students' genuine interest and love for learning. This genuine interest displayed the students' persistence and their engagement with a particular topic or content area to the teachers:

I said I want you to make a summary for me of the development of the human person from conception to birth and that was pretty much all the instructions I gave them and I think it was a Monday and I said it's due on Friday. Well and it wasn't a formal assessment task, it wasn't something that was going to contribute to their report …. and the work that my kids did was stunning. It was amazing …. and I went, I couldn't believe it and it wasn't even a formal assessment task. (B_IV)

Additionally, teachers made efforts to encourage intrinsic motivation in their classes, including expectations about their own influence on their students to promote it. These teachers sought to stimulate authentic interest, curiosity, and critical thinking by implementing, for instance, unstructured activities (see Chapter 5).

I hope that they enjoy their learning… I'd love them to all love history and that's all they ever want to study and they all go off to be historians and write books. I don't see that happening. It's a bit ambitious. Ultimately, I hope that the influence I have on them is that they enjoy learning, they like learning and they get those critical thinking skills and they consistently push themselves so they have that kind of intrinsic motivation which I think is really hard as a teacher. You can't really build it into a student but I hope that I somehow influence that intrinsic motivation. (A_II)

Nonetheless, extrinsic motivation was also part of students' high levels of motivation and engagement for learning, in which grades played an important role. Students were aware of the importance of marks for their future and they were driven by them. Grade motivation was considered important for teachers as well; however, they made efforts to reduce its role and tried to encourage learning and work for the joy of it and emphasised the importance of the learning process, more than marks as external motivation:

SEAL students definitely, particularly this Year 9 class are definitely motivated by grades. They very much want to know if something is getting marked to put in more

effort. Is this going on my report, what will this do to my grade average and things like that. I try not to use it as a motivator because I'd like them again just to like the process of learning, but definitely, I've sometimes used that as this is getting graded, you need to make sure you're focused and pushing yourself to do this. (A_II)

I try and push the fact that the test marks don't matter at all, all you're doing is trying to learn for the next year that you have to go through when you have to pick up your next lot of maths. So, we try and push that as—I mean the kids all compare and they know who's got the best mark from that. But we try, or I try, not to push marks as an important thing, it's just the number on your piece of paper and then you learn what you didn't know for next year, whether that's 90 per cent or 50 per cent is not important. (A_V)

One interesting source of motivation was the students' interest to respond to their teachers' expectations. They made efforts to avoid teacher disappointment because these teachers were important role models of motivation and hard work (see Chapter 3). This motivation illustrated the importance of the relationship developed between these teachers and their students, allowing them to be an important motivator and a source of encouragement to continue with their school work:

I have had a comment from a Year 12 student who said, that—he made the comment, that the only subject they liked was history and the only one they worked in was history because they didn't want to let me personally down. So, I think, again, I hate sounding really arrogant, but—I think that does play a really big role, when a student wants to work for you and doesn't want to let you down. They're definitely motivated. So, I think, for a lot of the SEAL students if they know you're going to be impressed by something or they know you're going to be surprised by a point that

they raise or interested in the discussion and you're listening to them, I think that definitely motivates them as well. (A_II)

[This teacher] was the kind of teacher that motivated me to try my best in the subject because I didn't like the idea of her marking my paper and seeing me get a bad score. I wanted to show her that I am capable and can easily succeed in her subject, and that I was 'worthy' of being a Yr. 10 doing a 3/4 subject. (A_041)

By being motivated, these gifted and highly able students were willing to work harder and to put more effort into their learning. This effort was again related to their teachers, demonstrating that the motivation to work hard became an important part of achievement, which was observed from all the hard work their teachers made. Therefore, working hard was conceptualised as a way to express students' gratefulness for the hard work of their teachers:

For me, I felt that the least I owed her was to put in as much effort as she had, to show my thanks and I had always endeavoured to put in even more work than she did, to fulfil my role as the student. (C_075)

There's that extra effort that goes in which means they have to put that extra effort in and—It just feeds off one another and I think that makes it a good relationship when they can see you've put the effort in—even if it's not, really showy but you've put the effort in to cater for a particular student then they tend to work harder which then motivates me to work harder because I want that student to just keep going. (A_II)

Teachers acknowledged that their gifted and highly able students were polite, respectful, and had a strong work ethic, which made the classroom environment an easy and joyful place for them to teach. Teachers mentioned that students' behaviour was positive and they presented no behavioural issues. This was helpful for the teachers identified as inspiring

to use the class time effectively and efficiently, and they valued students' ability to re-focus their attention after a joke or a break, which was helpful for them to use the entire time of the class. Students were self-regulated and self-disciplined, taking responsibility for their own learning process. Therefore, teachers were focused on creating more critical and challenging tasks, starting their teaching from an advantaged point. Most of the teachers identified as inspiring, mentioned that they felt fortunate to have taught these students because they were aware of how difficult this job was in different contexts:

> I feel very lucky and very privileged to work here with these kids, they're very insightful, they're very perceptive, I guess that's all part of the gifted thing, I wouldn't say all of my students are gifted, but certainly they've got a range of talents and that's what's enabled them to come here. So, in short they're a joy, I just love walking into the classroom and interacting with them, they're so much fun and I know what Year 10 can be like in other schools. (B_VI)

> I talk to my other friends who teach in other schools, maybe less academic, so I can't even get them to do any work, and they're ratty. And I can walk in here some days, and I say all right, we're going to get started. They could be all talking and chatting and something, we're going to get started, and within a minute they're all ready, and we can do something meaningful. And that's so fortunate, I know that. (C_VIII)

Teachers also described their gifted and highly able students as inquisitive due to their constant questions and creativity. Teachers acknowledged the questions asked by their students, which usually displayed creativity and deep understanding. Gifted and highly able students asked many questions, which were addressed by their teachers or reformulated by them to transform an answer into a question for their students. This was observed in different classes, for instance: "One student asked about a possible error in the equation they were

working on. The teacher said 'what do you think? What would you do to fix it?' Many students started chatting with their classmates around about possible solutions" (Obs C_X). Students' questions were insightful and thoughtful, displayed deep understanding and engagement in their learning, and provided new connections and interesting ideas for reflection: "Asking questions, seeing what the class thinks, who eventually ask him what the answer is, to which he says, 'I don't know, you tell me'" (A_003); and

> She said, I heard it was something to do with that, that was the reason why you shouldn't give chocolate to dogs. I said, 'That sounds feasible that there is an enzyme that dogs might be lacking that can't break down, say a certain amino acid or something like that in chocolate … So, I'm intrigued, let us know'. And the girl is very passionate about dogs and really wanted to know this and so she came back and she talked for about 10 minutes on it because she'd really researched the topic and you can tell when a student's asked something casually, or if it's because … they're really interested in it. (A_I)

Teachers considered their gifted and highly able students' questioning practices as providing valuable opportunities for students to learn, to challenge themselves and others, and they encouraged an environment in which it was safe to ask as many questions as students wanted. Teachers promoted environments in which questions were encouraged, listened to and responded (see Chapter 5). These safe environments were supportive, which facilitated active participation of the students:

> They're very curious which is good. Sometimes there's lessons that just go way off track because the questions they ask are just, they're interesting questions and they're, like, really in-depth questions which show they've spent a lot of time thinking about it and I don't want to discourage them from those types of questions. So, we've had lessons just go way off track. (A_II)

If they've thought of something interesting and they want to share it you don't shut it down, it is going to depend on what it is … I love that because you know they'll say, oh miss you know blah, well I was reading this thing the other day and what about this and I love that because I think well here's a teenager who could have been playing one of those awful games …but instead they've been reading this article or watched this show on TV…so let's stop what I'm doing and talk about that. (B_VI)

As mentioned previously, teachers valued students' curiosity and creativity, which was expressed in their work. Teachers mentioned that they usually structured tasks well enough to allow students to be creative (see Chapter 5); however, teachers acknowledged that they were frequently surprised by their gifted and highly able students' work and creativity. Students' creativity was evidenced in their questions and hard work. Teachers valued their students' creativity and they were flexible to adapt and restructure their classes to respect this creative time. Teacher A_II exemplified this:

They had to pick a bushranger or an outlaw or a convict and I said you're going to spend one lesson researching them and the next lesson I just want you to do a quick three-minute skit that tells everyone else the story, and it was meant to take two lessons. So far it's gone for almost two weeks because many of these students have really got into it. So, I've had students take songs from musicals and rewrite them to match the convict that they're doing, and one of the ones we have at the moment, they wrote their own song, their own rap song.

Finally, teachers considered their gifted and highly able students to be smart learners, which was expressed in different ways. In addition to the previous characteristics mentioned, teachers considered that these students had fast-paced understanding, genuine interest in learning, and creative minds to make connections. First, their gifted and highly able students were able to easily understand complex content, which enabled them to move through the

content at a faster pace. Teachers structured their classes, activities, and explanations according to the students' rhythms and moved quickly through the content, which the students regarded positively:

> I said to you, they seem to love school and they seem to love coming to school … they don't tend to need as much repetition of things obviously because they pick things up a lot quicker. The pace they move at in class is also quicker. (A_V)

> Just the way he was able to explain things, he managed to explain complex mathematical concepts quickly and clearly, so they were easy to understand and didn't require repetition. Just the simplicity of his explanations followed by how seemingly easy the work seemed after his explanations made it my favourite part. (A_051)

Teachers considered that their gifted and highly able students had a genuine interest in learning, with deep intellectual lives and spent their own time reading and learning to be prepared for their classes, being insightful, able to ask interesting questions and voice valuable opinions. Students highlighted the support and encouragement of their teachers to learn beyond the required content, and for sparking their interest and joy to learn more (see Chapter 5). The positive and safe learning environments encouraged their interest to actively participate in their classes, and their teachers acted as role models of passion and enthusiasm for particular areas of knowledge. Teacher participants mentioned that: "They might be quiet, but they're actually kind of have, oftentimes, sort of quite deep intellectual lives, and interests outside of what you might realise" (C_X); and

> I just find that the kids here have a desire to learn already, so I'm at an advantage. I don't think there's anything necessarily special that I do. It's just that they come in, and they want to improve, and they want to know how to improve—and they'll come

in with questions. So, I'll start lessons, and they will have read something, and they'll want to learn it more deeply. (C_VIII)

Knowing their students helped teachers who were identified as inspiring to effectively provide effectively for their gifted and highly able students. They addressed their students' educational needs and developed learning environments in which students felt free to express themselves. Knowing their gifted and highly able students facilitated the construction of positive relationships and positive learning environments, which opened the possibility to motivate and encourage students more effectively in their learning journeys.

Addressing the identification process as gifted and highly able learners

Teachers identified as being inspiring considered that investing time into learning more about their students was important to help them to face the process and implications of being identified as a gifted or highly able learner. These teachers were aware that being identified as gifted or highly able had important consequences for their students. These teachers developed different strategies to help their students to address this experience because they considered that learning how to understand this identification was a valuable learning experience. For these teachers, being identified as gifted or highly able, and the subsequent provisions offered to these students had positive and negative effects. Within the positive side, teachers conceptualised that these students increased their desire to improve. Additionally, being aware of their capabilities helped them to understand their learning processes and how to improve them. Students and teachers agreed that being in an educational environment in which students were able to learn alongside like-minded peers provided a unique opportunity to develop their talents in safe learning environments:

So that is obviously one of the advantages of having a SEAL school, is that we get more of them together and they can learn together and sort of see a similar sort of kids rather than being isolated for it. (A_V)

Conversely, teachers identified three negative consequences of being identified as a gifted or highly able learner that affected their students: giftedness perceived as a comfort zone, competitiveness with classmates, and issues of anxiety and stress. Many teachers commented that the majority of their gifted and highly able students were accustomed to being the top students in their primary schools. Consequently, many students felt that they knew everything that was being taught, and some of them became comfortable in that position and forgot that an important part of their academic success was due to effort rather than just ability.

I have noticed kids say, oh, yeah, but we're SEAL so we'll be fine, or yeah, but we get to do this or we'll—I'll be fine because I'm SEAL. Um, so that's not always a good thing. They kind of fall back on that. I'm SEAL so therefore I am smart, rather than I have to continue to keep working and push myself to be a strong learner or things like that. (A_I)

Being in an academic environment in which students found intellectual peers was sometimes understood as a promoter of competition among these students. This competence was evidenced in constant comparison with their peers, which reduced their satisfaction levels with their own performance. However, teachers interpreted this process as a *wake-up* experience, which needed to be carefully managed by them to have a positive influence on their students. This experience was sometimes a sudden understanding of students' own skills and capacities, which was a valuable lesson about the role of effort in the learning process and the importance of the learning process itself:

Now they're in this environment, they're surrounded by other kids who are also very able and sometimes that can have a neg… well not a negative effect but it's a wake-up effect on them because they used to be the top student in the class and all of a suddenly they're not the top student in the class anymore. (B_VI)

And that's why we get what I sort of label as damaged goods from primary school because these students have been—become accustomed to being the top students in their class and that they know—they know what they know and they're—they're the best and they don't have to even study for it. And then they come in and gradually their self-perception as learners starts getting lowered year after year because they don't understand the equation of ability plus effort equals achievement. They don't realise there's any effort involved and so they're just like ability equals achievement and so when their achievement starts getting lower because they haven't put effort in, they start questioning themselves … as learners. I want to jolt them out of this comfort zone as early as possible and make them feel like they don't know much, and then as soon as they feel like that—but it's got to be difficult enough so that everyone else in the class feels like they're in the same position. (A_I)

These teachers implemented different educational strategies to mitigate the negative effects previously mentioned and to promote safe learning environments. Teachers commented that they wanted to help their students to understand as soon as possible that being a gifted or highly able student was not enough for success, and that effort and continuous learning were fundamental. These strategies were conceptualised in four different and interrelated groups: promoting collaboration, providing the right amount of challenge, learning from mistakes, and addressing expectations and pressure.

First, inspiring teachers were able to promote a sense of teamwork and collaboration, in which teachers and students worked and learned together. This was achieved through the intentional use of specific words to illustrate that they were part of the same team. Teacher C_IX explained:

I'm writing on their work about what they can do better, I'll sometimes write, we need to work on this. I won't say, 'You need to do this'. I'll say, 'We need to work on the compare and contrast questions'…and they will say, I like the fact that you said 'we'. I guess the inclusive language and feeling like we are all in it together. Parents' evenings as well when they come, and they are anxious. I say, 'Well look, this is what we are going to do. First of all, we do this, then we do this and then we do this'. I won't be saying, 'Your student needs to do this'. The inclusive language, I think probably helps.

Further, putting all the students into the same experience provided a sense of union and collaboration, in which teachers and students worked together to find new responses or worked together towards a common goal. These strategies were demonstrated in the following interview excerpts: "And so, they'll start talking to each other to try to gain an understanding of it and you start seeing lightbulbs going on all over the classroom as they're collaborating and trying to navigate these murky waters" (A_I); and "they get much more motivated and intrinsically motivated when they see that we're all engaged in this learning and challenge. It's not just they're the student, I'm the teacher and I just give work to them, we're a team" (A_III).

Second, these teachers were able to use their knowledge about their students and the content to provide the right level of challenge. For these teachers, it was important to challenge their students in a manner which provided motivation and engagement to work on

particular tasks, rather than generating frustration, anxiety, boredom and other negative feelings:

> It's definitely finding the right level to aim things at, if you go too high you lose them and you can scare them off, an amazing field that is mathematics. Or if you go too low you just have them bored and disengaged and that's when behaviour management issues happen. (B_IV)

> He made sure that there was a sustained level of challenge in the classroom, and really encouraged us to explore the rational thinking behind questions without having to pressure us to necessarily arrive at the correct answer in the speediest possible fashion (since these topics were not tested as being part of the curriculum). This allowed us to gain a deeper passion ourselves for mathematics, away from the dryness of the required curriculum. (C_076)

Challenge was perceived for students and teachers as an invitation to go out of their comfort zones, feeling comfortable as being identified as gifted and highly able, presenting specific ways of understanding particular content or having specific procedures to address particular tasks. The right amount of challenge provided opportunities for the students to try different learning approaches and to persist in finding creative and innovative responses. As these students described: "This teacher put us out of our comfort zone and made us try new things"' (A_031); and "this teacher definitely made the subject something I wanted to learn and was challenged and motivated without being overly stressed or worried" (B_033).

Teacher A_I mentioned:

> It's got to be difficult enough that everyone else in the class feels like they're in the same position. Because if it's just of a certain difficulty where you're going to leave maybe five/10 students feeling terrible because they don't understand … and a bunch

of other students going yes, I got this, then you're going to really damage the self-efficacy of those students even further. So, the simple solution is throw everyone off the boat. Throw everyone out of their comfort zone so they feel like they're in this together and they're like … I don't get this, neither do I …. and so yeah I—blowing their comfort zone apart is really important for me because they've all had their taste of confidence okay? They've all come from primary schools where they were either the best or among the best.

Additionally, as some teachers mentioned, these students were taking accelerated classes, which meant that they were already out of their academic comfort zones. However, the teachers who were identified as being inspiring addressed their students' interests to improve and to learn more by academically challenging them. Students had opportunities to learn beyond the content, work with their peers and develop new knowledge and skills. As these teachers explained:

They need that little world shattered at least momentarily … so that they realise oh my God I don't know everything and the only way that I can start to get an understanding of this is by putting in huge amounts of effort and feeding off my peers. (A_I)

It sounds really … I just like to make them uncomfortable sometimes because I think there's a lot of—I mean, if I even look at my current Year 12s who I haven't—this is the first year I've ever met them and they say things to me like, oh, just give me the answer, and I can't do—well, I can just give you the answer but I'm not going to because that doesn't help you later on …. That idea of discomfort is—it sounds really horrible. I'm trying to make my students uncomfortable but I think—yeah. That kind of academic discomfort and critical thinking is important. (A_II)

Teachers identified as inspiring motivated their students to put extra effort into their learning. Students felt encouraged and supported to work hard to improve and to do better, challenge their own skills and feel motivated to study more than the minimum. Students mentioned: "The work is hard, but I find it very interesting, and I feel much more motivated to study more than the bare minimum after spending time around [this teacher]" (A_039); and "I have always liked English as a subject but after being in his class I decided to put more effort into my work and properly study to improve" (B_062).

Third, teachers concluded that it was positive for these gifted and highly able students to learn that making mistakes, being wrong and not knowing about some topics were valuable experiences. These learning experiences contributed to their motivation to work hard and to put more effort into their learning and academic performance. This strategy was challenging for these teachers, especially because they considered that these students were reluctant to take risks and make mistakes. However, students gradually learned how to manage their anxiety because they were in a safe learning environment with support around them:

> Some of the other strategies, we do, a weekly quiz which is just random questions from history and that's been really good at getting students to—well, the aim behind it is to get them to give things a go even when they don't know the answer and being SEAL students I found they're very reluctant to be wrong and they—I've had quite a few—I'd say almost half this class will not try something if they think they're going to get it wrong. So, we do just a really fun quiz. They're not expected to know the answers. (A_II)

> I really believe in them making mistakes, which is a really—it's the antithesis of what they believe because they want to get everything right. So, I change the culture from the beginning and say right, I'm going to make a lot of mistakes, and you're going to

tell me what they are, and you're going to make mistakes and you're going to tell

each other, and we're all going to feel safe with that. So that's really important to me,

that you know, that they learn to make errors. Because they're very safe. (C_VIII)

For these teachers, making mistakes was understood as a message that communicated

to the students that being gifted or highly able did not mean that they were always right or

that they knew everything. Some teachers considered this stage as a necessary step for their

gifted and highly able students to learn that constant learning and effort were required to

develop their potential and to achieve at high levels. Additionally, these teachers

demonstrated a constructive response towards mistakes, as they created tolerant, supportive

learning environments and acted as role models in this regard, as described by student A_032,

"He didn't act as mistakes were the end of the world" and Teacher C_X:

So, I'm teaching a particular topic, and I might have a range of examples in my head,

but then sometimes it doesn't quite work out, so I kind of try to be kind of reflexive to

that. So, I make a lot of mistakes, and I think that's actually okay. So, the students see

that sort of learning and doing maths is … it's not an act in perfection, it's an act in

kind of exploration of sorts. (C_X)

Finally, these teachers explained that their gifted and highly able students displayed

an interest to achieve their best, which was in many cases associated with external pressure

and high expectations as students felt they needed to demonstrate to others that they were

actually a gifted or highly able person. Most of these teachers commented that the sources of

pressure had multiple origins and did not come from them as teachers, in terms of the level of

challenge provided or unreasonable expectations. Teachers emphasised that their gifted and

highly able students enjoyed the challenges they were given and they were more engaged

when content and tasks challenged their capabilities, which was valued by students:

My thoughts did not particularly change drastically as I was already fairly okay with the subject; however, this teacher definitely made the subject something I wanted to learn, and I was challenged and motivated without being overly stressed or worried. (B_033)

They are under pressure … Well not really from us. It comes from the parent cohort, you know. And we have a rule for example that in Years 7 to 10 no homework is allowed in the holidays because otherwise a lot of the girls would spend their home—holidays doing homework, you know. (C_XI)

Teachers highlighted three sources of high expectations and pressure: parents, students themselves, and peers. Parents were considered a direct and indirect source of pressure with high expectations. Directly, some parents required extra work for their adolescent, and these requirements were mediated by these teachers, who felt the responsibility to explain that they were already providing the right amount of work and challenge. These situations generated an uncomfortable feeling for these teachers, as well as motivation to emphasise positive learning environments within their classes. They had to mediate and regulate parents' expectations to avoid negative reactions from their students. Teachers explained: "They're like argh, I only got 80 per cent on my test you know I'm such a failure, my parents will kill me. I hate it when they say stuff like that, I really do" (B_VI); "They want them to do more, and if you give them more, that's still not enough. Some of these kids are doing so much homework. It's just … they have so many tutors for different kind of subjects" (C_X); and

Again, it's just knowing the kids, it's what works for them, what's their motivation, a lot of the time it's the parental push and we try and eliminate that as much as possible and try and get the kids to be engaged in whatever we're covering. Some kids you just

can't do it with unfortunately but they're the ones that I make sure that we're getting that bare minimum, we're working together and put a lot of extra time into those ones just to make sure that they feel supported. That they're not doing this alone. (B_IV)

Pressure coming indirectly from students' parents was also conceptualised as the student's perceptions of their parents' demands, which in some cases were not explicit. Some teachers considered that students assumed that their parents had high expectations of them, which resulted in high amounts of pressure and stress, so they felt responsible to repay their parents' efforts for providing them with high-quality education and opportunities:

Especially kids with migrant backgrounds, if they feel like their parents have worked very hard to give them the opportunity, then the pressure is not really coming from the parents, it's coming from the kid to actually justify all the sacrifices their parents have made. That's kind of like a common migrant experience. So, not a lot of actually I guess correct parents on their behaviour or anything, it's just more of trying to get kids to manage that anxiety and manage the expectations in a way that's positive rather than negative. (A_VII)

The parents are not necessarily putting the pressure on there, it's the kids perceived pressure from the parents or that social expectation that they are going to become a doctor or a lawyer or anything like that, well what do you want to do? Well actually I just want to be a vet, just a vet? Um or I want to do this instead. (B_IV)

Peers were also considered a source of pressure, due to constant competitiveness among them, and considered by some teachers to exert a stronger social pressure than their parents. These teachers differentiated competitiveness among gifted and highly able students, and with mainstream students. As teachers explained, this pressure was more significant within their like-minded peers: "They want to be in the top few of the class, or they get 85 per

cent but that's not good enough because someone next to them got 90 per cent, that sort of thing" (A_VII); and

> I have a couple of comments from mainstream students who are like but they're SEAL so they'll know it. But they're going to be better at it, or comments like, but I'm not SEAL so it doesn't matter. I'm just dumb, but that's been very, very rare. (A_II)

Nevertheless, this competitiveness was dealt with by these teachers through activities that promoted group work and a sense of fellowship and encouragement of a shared feeling to understand that they face similar experiences. These teachers considered the learning experience as positive for these gifted and highly able students to have the opportunity to study in an educational context that valued, promoted, and respected their high abilities, and to learn alongside other students with similar abilities and interests. For these reasons, teachers valued the school culture due to its particular interest in ensuring students' wellbeing with an aim to make them feel comfortable and safe with their potentialities and abilities:

> So, these students come into Year 7 at our school and I see the relief that comes from them finally feeling safe in an educational setting, and that's ridiculous that that happens when they're like 12 to 13 years old, like they needed to have that from pre-primary school. They deserved that from as soon as they were learners which is when they were born, they deserved that …. I know my school is working as hard as we can to provide a space that is safe for them and that allows them to have a better sense of identity as a gifted learner and as a gifted person in this world, but it's constantly under threat. (A_III)

> As a school, we really put a lot of emphasis on making sure that they're well rounded people and—and we talk to them—a lot about values and things in assemblies and

they are encouraged all the time to take part in all the other activities that the school offers. (C_XI)

Teachers identified as inspiring valued the characteristics of their gifted learners and highlighted their motivation, effort, behaviour, curiosity, and intelligence. Additionally, teachers were motivated to promote learning as the central aim of teaching gifted students and use constructive strategies to address students' identification as gifted or highly able learners. These teachers developed academically safe learning environments in which students felt comfortable, respected and true to themselves.

Developing a Positive Learning Environment

Teachers identified as inspiring were interested in creating adequate environments to enable effective learning to occur. Classroom environments were conceptualised as active, interactive, vibrant, positive, and sometimes noisy and messy. Talking, listening, thinking, questioning, and discussing were important components in these classrooms, and teachers and students valued opportunities to share their opinions and interests and to learn from each other (see Chapter 5). This was applicable when working together with classmates, which was acknowledged by the students in these high-ability grouped classrooms as one of their favourite teaching and learning strategies (see Chapter 5). Student participants mentioned: "I mainly enjoyed the group tasks we did in this class since it gave me a chance to discuss with other students" (B_062); and "General classroom discussion and involvement of all students helps to gain different perspectives and ways of explaining difficult concepts, which improves our essay writing ability and strengthens trust in our classmates" (C_073).

Developing constructive relationships was understood as one of the critical ways to create academically safe learning environments, promote interactions in which gifted students

were respected, valued, and engaged. Additionally, these relationships were encouraged by promoting a constructive classroom atmosphere and interactive dynamics.

Building constructive relationships

Teachers and students commented that having positive relationships was one of the main descriptors for the learning environment. To build close relationships, teachers had to know their students well. This knowledge was related to students' academic performance, learning approaches, and learning interests. In most cases, this knowledge was also related to personal characteristics and interests, and students' life beyond the school. These relationships were understood as constructive, due to the teachers' desire to contribute to the development of their students' talents, as well as their interests for learning as a constant task. These positive relationships were built on three different elements: close relationships, symmetrical interactions, and humour.

Knowing their students at an academic and personal level was considered important and critical for these teachers to build close and constructive relationships, and to display that they were interested in them. According to the students, this interest facilitated interactions, which promoted a more personalised teaching approach: "She really makes an effort to understand each student so she knows us for who we are and can create the most efficient learning method for each individual" (A_024); "He would also make an effort to get to know you, your interests, strengths, and weaknesses, sense of humour, etc. individually, so you really felt like you were getting an individually catered learning experience" (A_055); and "The fact that she knows us all personally is helpful in the way that I find her easy to approach whenever I'm having difficulties or if I have questions about my work" (C_071).

Due to their close and constructive relationship, teachers also felt comfortable to express themselves. Students understood this as a sign of trust with them. In their classrooms,

teachers were open and honest with their opinions and feelings about the subject, with the students and about specific topics being taught. These teachers were opinionated about different topics and did not hesitate to express that to their students. Some students mentioned that they valued that their teachers were willing to share their honest opinions and feelings with them because they were perceived as role models who created appropriate learning environments, in which they felt comfortable to express their own authentic opinions and to discuss them with their classmates and teachers. Participants explained: "She is very open to discussion and for us to share our own ideas with the class, helping us to develop our own viewpoints and opinions about what we're studying" (C_071);

> They actually see my opinion come across in it and I don't mind that because I'm so opinionated about so many things and I tell them quite upfront that this is my personal opinion and not to be offended if it's … contrary to yours. In fact, if it's contrary to yours question me, challenge me. (A_I)

> She works so intimately with the text when she teaches, and not only gives her opinions and interpretations of the text, but also asks for our own, and leads us through the complex literary critiques of the text by others. (C_074)

Second, students interpreted symmetrical interactions as a valuable way to build positive and authentic relationships. Students understood this symmetry through how they were treated by their teachers. By being treated as adults, these students acknowledged that they felt respected by their teachers:

> She always treated her students as if they were equals or friends …. This made the classroom seem like a very friendly and welcoming environment as it made her seem very approachable and warm. (A_041)

He was also able to almost remove the barrier between teacher and student, allowing us to feel like he was a peer that we could directly communicate with, without feeling judged by a 'teacher' as someone who was assessing our ability or our 'intelligence' when it came to that topic. (C_076)

You can talk to them like adults and they'll really like that, and you can have a bit of banter, and you can joke with them, and I think anything that lightens that academic pressure of a place like [this school] is a really, really good thing, and I think the students really appreciate that. (B_IV)

Students mentioned that being treated as adults and valued as active learners was significant for them, due to their teachers' high levels of content knowledge and because they respected the students, so they did not feel inferior when they did not know or gave a wrong answer. This was understood as a positive message for them, and a helpful way to construct a positive relationship: "How damn smart and knowledgeable he is without making you feel inferior" (A_055); and "it felt very comfortable for me to ask her questions because she would always answer them in a very thorough way without making me feel foolish" (C_075).

Finally, humour was also explained as an important component for developing positive and constructive relationships that aimed to create positive and safe learning environments. Participants described humour in four different ways, which were interrelated and helped to explain interactions between the teachers who were identified as inspiring and their gifted and highly able students. Humour was described as a common feature, and a fundamental component in the development of friendly relationships, as a teaching approach, and as a strategy to make learning enjoyable. Inspiring teachers and their gifted and highly able students agreed that they had a similar sense of humour, which enabled them to better

understand each other, develop amusing discussions about heavy content, and facilitate the perception of an equal relationship:

> I think the one thing; our sense of humour is definitely very similar, lots of history puns. I think both the class and me know, the lamer it is, the funnier it is. So, a sense of humour works really well, and, we understand. I think that works really well between me and the students, and working off each other. (A_II)

Humour played an important role in developing friendly relationships. Due to this personal trait, teachers were characterised as easy-going, relaxed, and having cheerful characters. This facilitated an understanding of how knowledgeable and passionate these teachers were, being able to play with knowledge and demonstrate new perspectives and unforeseen features of particular subjects: "This teacher is really entertaining and is very creative in his approach to music" (B_059); "he is also cheerful and laidback, and willing to joke around in class—however, he's still firm when he needs to be" (C_072); and "his humour and engaging way of teaching is extremely interesting because it holds the attention of the class and also helps in learning the material" (C_088).

Additionally, seeing their teachers enjoy their own classes gave an important message for students, who understood this as an expression of how genuinely passionate these teachers were when teaching their subjects (see Chapter 3). Students also mentioned that the enjoyment demonstrated and experienced by their teachers was contagious, as they felt more engaged and motivated to learn about the topics. Students mentioned: "The characteristics of this teacher that I found really interesting were how she was always so knowledgeable about what she was teaching us, and seemed to really enjoy the subject, which was definitely passed on to the students" (C_069); and "I really appreciated his constant positive attitude and genuine interest in the topic he was teaching. It was evident that he was enthusiastic about the subject and this, in turn, generated enthusiasm in the students" (C_072).

Humour was also described as a fundamental part of teachers' pedagogical approaches (see Chapter 5). These teachers used humour as an engaging strategy to make the class enjoyable for their students. Witty stories and jokes were used to keep students engaged, keep their attention, gain feedback and know if they were still connected with the class. This ability to engage in humorous interactions reflected a maturity in these learners to do this and still engage seriously in learning. This student explained, "He also makes the subject enjoyable by adding relevant personal anecdotes, so students look forward to his class. This affects the environment as students are willing to learn" (C_085).

These relationships were characterised as atypical student–teacher interactions, in which hierarchical differences were not highlighted. Students usually described these interactions as friend-to-friend relationships, which were casual, respectful, open, honest, and based on trust. These students explained: "Instead of a typical student–teacher relationship, I have more of a friend-friend relationship with him" (A_038); and "Interactions between the teacher and students were friendly, while maintaining a level of mutual respect" (A_072).

Respect appeared to be a critical factor in building constructive relationships, being understood as an expression of mutual appreciation. From the gifted and highly able students' perspectives, they felt respect towards their teachers for multiple reasons, especially for the teachers' deep levels of content knowledge, the way these teachers interacted with them, and the support they provided. Teachers' high level of content knowledge (see Chapter 3) was considered one of the major reasons why these students respected the teachers identified as inspiring. Additionally, their deep knowledge was not a reason to treat students as less capable learners; on the contrary, these teachers were respectful, as they aimed to expand the students' knowledge and valued students' ideas, initiatives, and ways of thinking, which contributed to a mutual appreciation and development of knowledge. These students explained: "[She] is calm and non-judgemental, and shows genuine respect and care for her

students as well as trust and belief in the class, which makes us more willing to earn that respect and show respect in return" (A_012); and "Would say something about her life in class and it just made me realise how much I respect her" (C_084). Finally, students expressed their respect towards their teachers due to the support offered to them, which evidenced teachers' interest to contribute to the development of their talents in academic and personal dimensions.

Teachers identified as being inspiring also demonstrated respect towards their gifted and highly able students, by treating them as adults, by respecting their pace for learning and working, and by displaying respect towards their interests. Inspiring teachers demonstrated respect towards students' pace for learning, which was faster than average. By respecting students' rhythms for learning, these teachers were able to address their academic needs. Students explained: "His classes mostly run at each student's own pace with some time set for teaching. He would be there to support and supervise everyone" (A_022); and

> I enjoyed the fact that he would rush through required topics, covering it quickly enough that it didn't drag, and slowly enough that students were able to gain a decent understanding of what was going on, and be able to identify at a later date, things that were not fully understood. By then moving onto more complicated topics, he made sure that there was a sustained level of challenge in the classroom, and really encouraged us to explore the rational thinking behind questions without having to pressure us to necessarily arrive at the correct answer in the speediest possible fashion. (C_076)

Finally, they also respected the students' interests by facilitating learning activities that included independence and which promoted opportunities for them to use their creativity, initiative and decision-making. As Teacher A_I exemplified:

He was the only one … I gave a whole bunch of suggestions of topics that they might find interesting and they could choose from those. But he came and had one of his own … that he wanted to research and he did an incredible job of it because he'd had to research it so deeply in order to convince me that it was a valid topic to do.

Learning in safe learning environments, in which positive and constructive relationships were promoted and practised, meant that asking for help resulted in an easier activity for the gifted students. Help was easily accessed when it was needed, with teachers usually walking around, displaying their availability. It was not an intimidating place to ask for help, and students highlighted that the teachers identified as inspiring did not overwhelmed them offering help when it was not required or when the gifted and highly able students felt capable to complete the task by themselves: "Helping students with different things but not giving too much away (leaving the student to figure it out after giving them a hint or idea)" (A_031); and

He gives a lot of freedom when planning out our work and expects us to design all of designs and make all of the things that need to be made by ourselves; however, he will give us help when we ask. (A_004)

Extra help was also available for those who required it, especially for those students who did extra and independent work. Teachers were flexible to adapt their timetable and to provide additional feedback, support and guidelines: "She would be willing to help us write extra essays in our own time and would give us plenty of advice and notes to further extend our French" (C_075);

They are really good kids and I love my job and I love teaching and I think that really makes it a lot easier to put in that extra effort to work through lunch or to meet with kids before school at 7.30 if they're having a bit of trouble, they'll come in and I'll stay with them or I've stayed back till 6.30 at night helping certain students at times

because they thank you for it, they're appreciative and in the end I know it's going to come back in some way, when they're successful citizens they'll be able to pass on that knowledge to someone else. Yeah it just makes it easy to know to put in those yards. (B_IV)

Promoting a constructive classroom atmosphere

By building positive and constructive relationships with their gifted and highly able students, these teachers identified as inspiring promoted constructive classroom atmospheres. These teachers made important efforts to create constructive learning environments, which enabled the gifted and highly student participants to learn and develop skills in safe and positive contexts. Different viewpoints were considered to explain the development of these positive learning environments. According to student participants, these teachers were able to develop positive and safe learning environments, which were mainly influenced by the inspiring teachers' characteristics. Students mentioned that learning environments were relaxed because their teachers were relaxed, easy-going, and laidback. Studying in a relaxed atmosphere was acknowledged as an important characteristic of the learning environments created by these teachers. Students mentioned that learning in this kind of environment was helpful in developing further understanding of the content and the development of close relationships. These features helped to create learning environments characterised by friendliness, authentic communication, engagement, encouragement, respect, and humour. Students valued the friendly atmosphere, as it provided for their educational needs, helping them to feel safe and respected. Student A_040 discussed:

The class was a fun class to be in because it was a very friendly atmosphere where [this teacher] would allow us to talk to our friends, and only sometimes redirect us to

commit to the task if we got a bit loud. He would come around and make sure we were working, but he never forced us to complete the work in a certain way.

Similarly, teachers acknowledged their influence in the learning environment. They consciously worked to create a learning environment in which students could develop their potential, feel respected, comfortable, and engaged. Teachers prepared their classes with the aim to provide accordingly to their educational needs and consider the curriculum and students' upcoming goals:

As I said, it changes, so generally a lot of the time I try to have a little bit of a relaxed feel. Sometimes I do get quite serious …. I want them to enjoy the subject and feel relaxed when they come in, enjoy it, getting them into the debate and what have you, but there also needs to be a little bit of urgency because we have to get to a certain destination. (C_IX)

Conversely, from the teachers' perspectives, the learning environments were mostly influenced by the gifted and highly able students' characteristics, and by the students' reactions towards different classroom activities. Teachers frequently described the learning environments as inquisitive, full of hard work, and focused, which were also characteristics of the work approach of their gifted and highly able students. Teacher A_V explained:

The learning environment? I guess relaxed and hardworking. We don't tend to have many, any, discipline issues in any of the SEAL classes that we have. But it's still a really hardworking sort of thing. So, they just work for the 50 minutes, but I can stop them and have a chat about what they're doing outside of school for two minutes …. have a chat about their life outside of that individual class, and then get them back to work straight away, without losing them for like 15 minutes, or 20 minutes.

Activities developed in classes also determined the atmosphere of the classrooms through the students' reactions towards them. Students enjoyed activities in which they were

encouraged to interact with others—particularly groups organised by themselves—engage in challenging learning tasks and activities in which they were able to express their ideas and freely ask questions. Students' enjoyment of their classes and their ability to respond positively to the activities also helped to create positive environments, which were noisy, relaxed, receptive, and collaborative. Teachers used these positive and engaged reactions as feedback to teach them effectively and to maintain a positive and safe learning environment (see Chapter 5):

> My favourite classroom activity is when he makes us stand up and walk to either side of the room depending on our opinion of a particular topic. He then makes us explain our justification for where we have positioned ourselves. I like this a lot because I get to see many contrasting opinions and also open my perspective to a lot of topics. (A_065)

> Discussion, also debates. The class is a space to learn about how to talk and write about the issues in the world that matter to us (in French of course), and it's really enjoyable to be able to apply our learnt skills on language into really fascinating and meaningful discussions. Language classes are much less dry and pointless. (C_077)

Being in a positive, safe, and constructive learning environment was beneficial for students' learning. Students acknowledged that they felt comfortable asking questions, giving their opinions, and asking for help when required. These learning environment characteristics helped the students in terms of motivation to do better, improve their learning, and keep trying, as these students commented: "The atmosphere in her class is always super friendly and I feel like I can always talk to her like a friend, even out of class. Her classroom is always really inviting, which I find helpful in learning" (A_023); and "I felt comfortable asking her questions and she always had a good response. It was a more relaxed environment than some

other classes and she always made sure to check if we were all handling the workload well" (C_084).

These students and teachers agreed that learning in non-judgemental learning environments was perceived as a critical feature for them to feel safe and to enable the students to express themselves. Gifted and highly able students were characterised by their inquisitive minds and these environments encouraged them to ask questions and to ask for help without being concerned about negative consequences. Questions played a critical role in these learning environments, helping to promote a positive and safe learning atmosphere in different ways.

Questions facilitated a dynamic interaction between students and their teachers. With questions going in both directions, it was possible to develop positive learning environments because questions were welcome and valued. Questions were a valuable opportunity for students to clarify and to look for answers from their teachers, who provided clear answers and opportunities for the students to think and be critical. These questions displayed students' creativity and divergent ways of thinking. By asking questions, students demonstrated their interest, knowledge, and engagement to know more about particular content, as well as their creativity and ability to connect new knowledge with other fields and content.

Additionally, questions were often from teachers to students, demonstrating teachers' interest to know their students' opinions, interpretations, and points of view. These questions encouraged creative, critical, and divergent thinking. These questions were observed in all the classes, with questions such as "What would you do?', "What if?" and "What could happen?" Teachers emphasised their appreciation when students asked many questions, especially when they asked highly creative and in-depth questions, and not necessarily those strictly related to the content: "So, when a kid finds something easy, I can say, okay, what about if we make this negative here instead of positive, do it now? Then they'll go oh that was yeah

more difficult or something" (A_V); and "She also loved to hear the opinions of her students, forever asking what we thought certain literary features meant, and always seemed very appreciative of our contributions" (C_074).

Students mentioned that they felt comfortable and confident asking as many questions as they wanted because these learning environments were safe places. They explicitly mentioned that they did not feel scared to ask questions of their teachers because they already had positive relationships with them. Teachers who were identified as being inspiring emphasised that they made efforts to create learning environments in which questions were important because they were considered a valuable source of learning, which promoted critical thinking, reflection, creativity, and challenge: "[She] knows all of us in the class, and interacts with me in a way that makes me feel comfortable to speak, ask a question, or share my opinion" (A_039). Teacher A_V also discussed:

> I think the environment in a SEAL class in general, and hopefully in my class, is
> asking questions is okay, and it's not something you have to be scared, putting your
> hand up to ask a question. So, certainly in that first 10 or 15 minutes of a lesson, when
> a whole class is sort of focused on what we're covering for the day—there's
> obviously a big group of questions then. And then after that a lot of it is individual
> questions about a particular question …. What I will do in that next 30 minutes … is
> sort of walking around the room.

Learning and enjoyment as the main educational aims

The concept of a positive learning environment had two main educational aims: deep understanding with a focus on reasoning over memorisation; and learning and having fun as a package. Teacher and student participants agreed that having a deep understanding based on their critical and creative thinking promoted in class was as an essential part of the

educational experience. Developing a deep understanding frequently involved going beyond the curriculum. For these students, classes with the teachers identified as inspiring, which had them questioning and thinking about what they were learning, made them feel comfortable and safe because they knew they were learning the appropriate conceptual content and more than the required curriculum (see Chapter 5). Student participants mentioned:

Maths is a commonly hated subject at school—it seems very clinical, all about memorisation of various formulas and extremely content heavy. But as cliché as it sounds, [This teacher] really did make maths more fun. In particular, he changed my viewpoint of maths as rote memorisation by emphasising conceptual understanding throughout the lessons. This made me more aware of the enormous potential of maths and helped me understand why formulas existed, rather than simply learning them. (C_72)

I really enjoyed the way that he would slowly, carefully go through each step of a question with a particular focus on understanding why each step unfolded the way it did and lead to the next step, rather than asking us to memorise a series of steps with no context. (C_076)

Having a strong focus on learning and students' futures, these teachers developed some strategies to place thinking and questioning as part of conceptual learning and understanding as a priority over memorisation and marks. These strategies helped these highly able students to re-conceptualise learning with a focus on their understanding more than grades, and more than reciting content, which did not make sense or was not reasonable to them (see Chapter 5). Participants exemplified this:

I've decided to do unit 3/4 biology next year, which [This teacher] recommended. He thinks I'd be capable of it, and even though I'm not entirely sure of that myself, I still want to do the subject purely to learn more about it, regardless of grades. (A_003)

So, I don't try to teach from a position of authority, if that makes sense. Like, I would never say that something is … Maybe I'm a bit anarchistic, a little bit. So, I never get them to believe something just on account of me saying that it's true. I don't want them to actually believe anything that I say until they actually believe themselves. (C_X)

As explained before, teachers identified as inspiring were able to create fun and engaging learning environments, in which students learned complex content without losing the joy of the process. These teachers managed to teach complex content through highly engaging strategies, make jokes, and provide unexpected answers and fun activities which were highly valued by the students (see Chapter 5). Students said: "The teacher makes every class fun; she makes it engaging and worthwhile. We are never really bored as she keeps us busy most the time. She is enthusiastic and very kind" (B_060);

My favourite strategies were those that involved student interaction—in particular, the example that comes to mind is [This teacher's] 'parabola dance'. A lot of us were having trouble understanding the dilations and translations of a parabola, so he came up with a dance to help us, which he taught us and we performed along with him. Surprisingly, it did actually aid in my understanding! (C_072)

These teachers conceptualised learning and having fun as parts of the same process, highlighting a strong connection between them so that students were motivated to learn. Most teachers identified as inspiring considered that fun in their classes was an essential element to promote deep learning. As previously mentioned, having fun with their classes was also

important for the teachers as it was critical to display their enjoyment, so they were motivated and engaged in the teaching and learning process as well, which was important for their students. Therefore, students and teachers had fun together, through their interaction and the content: "If they are having fun they are more likely to listen, they are more likely to learn, they are more likely to do the work, that is the important part" (A_VII); "When the teacher's having fun themselves, then the kids will too. I have fun when I'm presenting stuff which I really like… So, I have fun that's just … I don't know, I guess this stuff is just contagious" (C_X);

> If I can keep that engagement happening at all while learning and having fun, it doesn't have to be the whole time … but I'd like to think 90 per cent of the time it is that combination of both and it's something I pride myself on and it does get harder the further you get up into VCE but even in Year 12, we definitely make sure that we are having fun, it's enjoyable. Not everything is enjoyable with maths and some kids are doing it because they have to, but even then they still sit there, and they get something from it. (B_IV)

Teachers mentioned their intentions to embed fun and enjoyment into their activities with an educational purpose. This was valued by gifted and highly able student participants, who acknowledged that these teachers were able to create a highly engaging atmosphere, and they looked forward to these classes:

> I liked the subject of biology before this year, but I really, really like it now. It's one of the subjects that I look forward to, and really don't want to miss a class of, not because I'm afraid I'll miss the material, but because it's enjoyable and we always learn something. (A_003)

I'll sometimes do silly things, I will sometimes do some acting. So, act out guerrilla warfare and things like that and I'll hide behind a door and then I'll jump out and try and make a big deal about that. There's various other things but I just act it out in the classroom and they really like that, but I am doing it with a purpose. So, when they say; it's fun, but they still feel that the environment is still like an educational environment, it's fun, but with a purpose. (C_IX)

By promoting positive emotional experiences in their lessons, teachers managed to cultivate learning environments free of negative feelings, in which students felt safe to ask questions so they could clarify their thinking, ask for help, express their opinions and follow their own interests. Teachers identified as being inspiring were supportive, non-judgemental, and non-intimidating, which created educational environments in which students felt safe and not afraid to be themselves: "He was always very understanding and non-judgemental when students asked for him to go over the topic again because they didn't understand something, so no one felt like they had to hide their lack of comprehension at times" (C_076);

The environment in his classes is relaxed where I feel supported and not scared to ask questions. He comes off as supportive and friendly so it makes me feel like I can easily ask him questions and won't be judged for it. (B_053)

Second, and related to the previous description, the learning environments were contexts in which students were productive and the classrooms were free of stress. Students acknowledged these learning environments as relaxed, in which they could work intensively without feeling stressed, mainly because the focus was located on learning rather than on their performance. Moreover, although some students recognised that they were under pressure, these teachers made efforts to support them and ensure the learning process was a positive and enjoyable experience for their gifted students: "The learning environment is quite relaxed, but I still feel like I learn, and do work. She doesn't yell or make us feel

stressed, which is good" (A_037); and "He really acts like he values your input and ideas, and makes sure that everyone gets a say in everything, which makes people feel very relaxed and willing to learn" (A_055).

Having teachers with a motivating and engaging approach to teaching was considered fundamental for these gifted and highly able students, who enjoyed the predictable and unpredictable phases of their teachers' pedagogical approaches. They had certainty that they were learning above and beyond the recommended curriculum (see Chapter 5) and they also felt that these teachers were teaching them from the best of their ability and knowledge, and knew that these classes were high quality:

> I dreaded taking economics since my sister hated the subject all throughout her university degree. However, since I felt confident that [this teacher] would teach us to the best of his ability, I knew we would be OK at the end of Year 12. To take that OK to me achieving a high study score inspired me to work harder independently so I could do as well as I possibly could. (C_068)

> She always went above and beyond what was required of her role as a teacher such as providing us with extra resources to look at to improve our French and being very detailed when she taught us grammar. She would be willing to help us write extra essays in our own time and would give us plenty of advice and notes to further extend our French. (C_075)

The unpredictable side was explained through the inquisitive and humorous ways of explaining content within the class, which allowed learning to take changeable and interesting directions. This was also acknowledged for some teachers, who mentioned that this unpredictable side was important to keep students intellectually engaged (see Chapter 5). These participants discussed:

The most engaging classes are the ones that go in a direction that you weren't expecting. So, the first chemistry prac that … my Year 9 SEAL students do at the start of the year they're used to getting a prac sheet and say do this, do this, do this, do this and then answer these questions. And my first chemistry experiment is, this is the concept that I'd like you to explore, here is a massive list of the chemicals that I have—and apparatus that I have available at your disposal, now write the experiment that you want to do. And, they're like what? Where are the instructions? (A_I)

He also had this cool thing where he'd teach you a fun fact or a cool new word whenever he felt like it, so the lessons were always going in weird and wonderful directions. That paired with his quirky teaching habits (like trying to use any and every non-straight item as a ruler), though they may not be official 'strategies' for teaching, really helped me get through maths, which is traditionally a hard and boring subject. (A_055)

Creating an academically safe learning environment was understood as a critical feature to inspire gifted and highly able students, by making them feel comfortable, respected and valued by their teachers. Acknowledging their students' characteristics, and helping them to address the identification process, contributed to demonstrate that these teachers prepared their classes considering these elements and, therefore, attending to their educational and emotional needs. Additionally, the development of positive learning environments was based on the establishment of constructive relationships and classroom atmospheres and on the position of learning and enjoyment as central educational aims.

Summary

This chapter has outlined the category conceptualised as *creating an academically safe learning environment.* It explained how the teachers identified as inspiring developed an optimal environment, in which their gifted and highly able students felt comfortable and true to themselves. Two interrelated subcategories emerged demonstrating understanding of students' characteristics and developing a positive learning environment.

The first subcategory acknowledged the importance of knowing their students in academic or personal terms, or both, and it highlighted the characteristics that teachers identified as inspiring valued in their gifted and highly able students. Teachers described their students as highly motivated, hardworking, well behaved, inquisitive, and smart. Additionally, this category explained the strategies used by the teachers to address the identification process of gifted and highly able learners, including promotion of collaboration, adequate level of challenge, and mistakes as learning opportunities. The second subcategory emphasised the development of a positive learning environment, in which building constructive relationships, by establishing close relationships with their students, symmetrical interactions, and using humour, was considered a critical task. Additionally, the promotion of a constructive classroom atmosphere was influenced by their characteristics, the activities developed in classes, and the constant use of questions. Finally, this second subcategory highlighted the main educational aims established by the inspiring teachers, which included a deep understanding and a strong focus on enjoyment. The next chapter will present the third main theoretical category—*teaching above and beyond the recommended curriculum.*

Chapter 5: Teaching Above and Beyond the Recommended Curriculum

Chapter Overview

This chapter focuses on the category conceptualised as *teaching above and beyond the recommended curriculum.* This category reflects on the experiences and strategies used by the teacher participants to teach their gifted and highly able students diverse content, and skills valued for the future in their students. This category is further explained through two subcategories: *facilitating meaningful teaching and learning,* and *preparing students for the future.* The first subcategory reflects on their experiences of teaching gifted and highly able students, and explains the students' preferred strategies used by the teachers identified as inspiring to provide a meaningful learning process. The second subcategory emphasises how the teachers prepared their gifted and highly able students for their futures, explaining the strategies used to teach above and beyond.

Facilitating Meaningful Teaching and Learning

'Above and beyond' corresponds to an *in vivo* code used by the student participants to describe the teaching approach of the teachers identified as inspiring. These teachers made important efforts to effectively address the educational needs of their gifted and highly able students. These efforts were in consonance with their associated roles as teachers, their teaching approach, and the strategies used to teach these students. Teachers considered that educating their gifted and highly able students had three important characteristics. First, the promotion of understanding over memorisation of content (see Chapter 4) was a valuable learning opportunity due to students' characteristics. Second, educating these students was

understood to be a two-way interaction, in which information flowed between students and teachers, with no limited direction as traditionally perceived from teachers to students. For this, the development of an academically safe learning environment was critical (see Chapter 4). Finally, educating gifted students was characterised as a growing process, which motivated the students to continue learning and inspired them to be lifelong learners (see Chapter 3). These characteristics are explained by these teachers:

> Students are not passive receivers of the information. That they are actively engaged and while they're receiving information they're generating theories or questions in their mind that they want to put to the test. So, it makes education a two-way street I guess. That it's not just me feeding to them. But they are either feeding back to me or asking me or—or I'm asking them. That the information is—is, sort of going in both directions … and questions are going in both directions. (A_I)

> That's something that the school's really been proud of lately is really pushing that type of learning growth it's all about growth rather than the best, and we're lucky enough here to have students that are really talented not just academic but we've sporting champions, we've got debating champions, we've got kids that write books, kids that have composed musicals, our kids are so well rounded and they're all really good role models for each other and I don't think there's anything that's done in this school that the students don't realise that there's another step to it, I can get better, I can find another area that will interest me based off this. (B_IV)

The experience and meaning of teaching gifted students

Teachers identified as being inspiring attributed different meanings to their roles as teachers of gifted and highly able students, which were strongly associated to the students' characteristics, implications of teaching at a high academic level, and their own learning processes as teachers (see Chapter 3). In addition, this meaning was developed with consideration to their expectations of their students. These teachers had high expectations about their gifted and highly able students, which were based on their knowledge about students' academic and personal characteristics. Most of these teachers visualised their students as future leaders and felt responsible to provide the adequate education for their students, teaching accordingly to help them to achieve bright futures. As these teachers discussed:

> I'm so glad that they're going to run the world soon. I want the world to hurry up so they're the kids in charge because I see so many good qualities in them that I hope they take to change the world. These are the kids who can do it, I mean it would be nice to say everyone can do it and will do it but when I look at my Year nine SEAL class there should be politicians and CEOs and people in positions to have real impact in the world, they'll be from that class and I think that's a good thing. I think if we can help them get to those positions the world will be a better place. (A_III)

> I can't wait because I know that they're going to be, you know I'll be watching the news and there'll be this amazing new discovery by Dr Blah and I'll look up and go oh I taught that person. I can't wait for that because I know it's going to happen because these are amazing young people so I'm mostly excited to come to school every day. (B_VI)

Some teachers understood their role to be facilitators of learning, who helped the students in their developmental journey. Other teachers considered that their role was related to teaching and helping their students improve in diverse areas. Teachers highlighted that helping their students to become better citizens—to make wise decisions in socio-political, economic, education, health and other dimensions—was seen as an important reason to develop students' critical thinking:

> Teaching is kind of … a form of giving, I think it's a service, of sorts …. I'm teaching to think, and so when it comes to the notion of proof and what have you, I think it's actually just training for … to be a democratic citizen. To actually be someone that can actually function, and not be tricked …. Um, yeah, so getting them to … know the difference between what can be contested and what can't be. Like, knowing what authority to accept as kind of legitimate, and what authority to accept as illegitimate. That's actually a hard thing to teach, I think; but I think maths is kind of a nice natural place to kind of start with that. (C_X)

Some teachers explained their teaching role as acting and performing. This acting was experienced in different forms for these teachers, which was related to the level of interaction established with their students (see Chapter 4). This performance was described as either an authentic way to project their enthusiasm onto their students or as a character, who was entirely focused on teaching. This performance did not mean that these teachers were not being honest with their students. However, some important differences were found in this regard. The majority of the participating teachers considered themselves to be honest with their students in terms of how they behaved, whereas other teachers preferred to play a role, or to display that they mainly knew about the subject and whose normal lives worked around that:

When I teach I more or less just play a character and so my character is someone who does nothing on the weekend and just reads the newspaper if I have time …. More or less I just pretend that the only thing I like is my subject and I'm very enthusiastic about it and when I go home I do my subject and I read about my subject, that's pretty much it. (A_VII)

I think the most important thing for me is getting myself into the right frame of mind and I suppose I think that teaching is a bit of an act …. And so for me a lot of it is about projecting enthusiasm for my subject and for the girls and projecting that I care to the girls. And if I can do those two things then I rely on my knowledge of the content, to get me through and I think that's really important. It is a bit of an act. You can't just go in without the right mindset. Otherwise it's not quite enough …. I wouldn't want you to think that I was pretending to be somebody that I'm not. I think what I project is part of who I really am. (C_XI)

Teachers described teaching as a skill and as an adaptive and endless task, which was developed and evolved according to their experiences, and formal and informal learning processes (see Chapter 3). Additionally, an important component in this evolving process was the teachers' interest and willingness to develop into better teachers. Teaching was also considered an adaptive and endless work in progress, which involved flexibility to adequately plan according to students' characteristics, knowledge, educational needs and interests, and the constant learning to be on top of the knowledge required to facilitate an effective learning process. This was discussed by Teacher A_I:

I think that was something—and when I did the Master of Teaching in Melbourne that was something that was really drilled in that, teaching is an adaptive thing. That, you don't just develop your curriculum and teach it the same way year after year. It's completely tailored to the cohort that you have and that's exactly what I do. Like

every year I teach the same topic, but I teach it very, very differently depending on my students … and their interests.

Teachers considered that being able to inspire their students was a goal because they worked hard to keep students engaged, interested, and motivated with their learning and with the subject. Teachers mentioned that they felt satisfied when their students understood new and complex content, and when they were able to challenge their own beliefs. To do so in safe learning environments, these teachers created positive relationships with students (see Chapter 4) and established class rules and rapport, which were positive for everyone in the classroom:

> Do I feel like an inspiring teacher? That's so hard to say, I hope so? I really hope so, I mean I guess that's the goal isn't it. So, I think, like all teachers there are days when I get it, and where it's working really well and then there are days when it doesn't happen as well, so I hope that it's part of the type of teacher I am, and I'm working at it to make sure that that's consistently part of the teacher I am. (A_III)

> I feel like I did a pretty good job because at one point about eight of them just went 'oh yes', and that's the pay off. When they go 'oh' you can kind of see whether it's through the sound or through their eyes, the understanding and particularly when it's understanding, after having struggled for a while. For me that's a lot of fun, seeing good product that they produce, seeing them actually output something that I think is of a very good standard is fun. (A_VII)

> Why do the kids enjoy my class? It's because there's that rapport and that feeling of—like you walk into a class, I don't think the kids fear anything, and they feel like there's a sort of connection and there's—I treat them as equals. My schooling wasn't

like that. You know, we're talking about a long time ago, and the teachers were very—it was us and them. (C_VIII)

Teachers experienced positive feelings associated with teaching gifted and highly able students. Teachers mentioned that they felt lucky to have had these students in their classes and for having the opportunity to teach them. They enjoyed teaching them and had fun doing so. They were also enthused by the content, which was clearly visible and transmitted to the students. In general, the majority of these teachers mentioned that they were proud of their students and their work, as they were intrinsically motivated and verbalised this to the students whenever possible:

> Well that class is just gorgeous and amazing, so I tell them that all the time they're just incredible humans … they're great people, they're really interested in themselves, they're very interested in each other, and the world that they live in, so their curiosity I love, I don't know what the right word for it is but it's like determination, they're so committed to some great ideals like they're very interested in justice and truth and fairness so I really love that idealism. (A_III)

> I feel very lucky and very privileged to work here with these kids, they're very insightful, they're very perceptive, I guess that's all part of the gifted thing, I wouldn't say all of my students are gifted, um but certainly they've got a range of talents and that's what's enabled them to come here. (B_VI)

Teachers' enthusiasm and passion for their subjects and for teaching (see Chapter 3) enabled them to engender an active interest in the subject and for learning in their students, facilitating engagement and high motivation to become active learners. Additionally, students affirmed the value of the subjects and the significance of their learning. This was also explained by the meaningful effect that these teachers perceived in the subjects they taught.

These teachers explained that their subjects were much more than the explicit content knowledge declared in the curriculum because their subjects provided opportunities for personal and academic development using words, theories, and history to facilitate personal understanding. With this, teachers showed the students that their subjects opened up new meanings and helped them to discover new learning opportunities and understandings:

> I think there is so much identity invested in not the study of English because I'm sure it's the same for all literature but reading novels and seeing yourself in it, or learning about yourself or developing empathy and having a language to clearly articulate and express your ideas, that's identity formation so I'm really interested in the way that the self is created through the different parts of the study of English so yeah I guess that's one of the reasons why I wanted to teach it as well. (A_III)

Finally, teacher participants were committed to make the most of their subjects and to fully use the time they had to promote as much learning as possible. To use the time effectively, these teachers motivated their gifted and highly able students to work full-time, stay on task and work from the beginning to the end of each class, and school term. As mentioned in Chapter 3, this did not mean that this created stressful environments because these teachers were able to create interesting and engaging activities, which kept students motivated and enthused to be working, learning and having fun while doing so:

> I'll always have backup tasks in case we get led down the garden path because, I think that's the thing that, the students get, to understand the most when they come—when they walk into my classroom from day one, it's work from beginning to end. And, I try to embed as much fun as possible into that work because we don't take a break from it, and so like a lot of teachers start winding down towards the end of the term. I'll usually have a topic test on the last day of term even if it's period six on a Friday because they know they're coming to my classes to work. (A_I)

Students' preferred strategies and activities

Participating students acknowledged a wide range of strategies and activities used by teachers identified as inspiring to potentiate their knowledge and skills, and these teachers made efforts to provide for the heterogeneous group of gifted and highly able learners. According to student participants, it was possible to enumerate five different strategies and activities highly valued by them, which were strongly related to the teachers' characteristics presented in Chapter 3. These strategies and activities included classroom discussions, practical lessons and activities, using mistakes as a learning strategy, group work, and teachers' stories.

Classroom discussions were acknowledged as the most valuable teaching and learning strategies used by teachers identified as inspiring. These discussions were engaging for the gifted and highly able student participants and considered as invitations to stimulate student voice and to share their thinking, opinions and arguments with the group. Moreover, classroom discussions were defined as valuable opportunities to learn from each other and strengthen their knowledge, which helped the students to develop a deeper understanding of the content. This was also important for the students to develop, improve and challenge their skills such as listening to others and public speaking. These students explained:

> We have a lot of class discussions, and rarely ever just sit and work in silence …. I really enjoy the class discussions because they help me improve my speaking and listening skills, and they allow me to ask questions so I can understand the content really well. (A_039)

> This activity [classroom discussion] encouraged me to voice my opinion too, and allowed me to be able to observe situations and concepts from the perspective of

others. This classroom activity is one of my favourites as I like to participate in discussions as I am excited to debate with others about various topics and hear their opinions and perspectives. (C_082)

A safe learning environment was considered fundamental to enjoy and to make the most of classroom discussions, in which teachers had a significant role in creating. Being in a positive and safe learning environment to voice their opinions, gifted and highly able students were able to enjoy class discussions and engage in intellectually stimulating conversations. Additionally, classroom discussions were described as activities in which everyone had a chance and was encouraged to participate. As these students discussed: "Group activities and discussions, especially in smaller groups so everyone feels comfortable with voicing their opinions" (A_008); "I enjoyed all his lectures and the class discussions we had since I learn best when involved and I have the chance to voice my ideas" (B_062); and "She ensures that everybody in the class is able to express an opinion or contribute to the class discussion" (C_070).

Teachers planned classroom discussions as formal activities; however, occasionally they emerged as important opportunities to answer questions or to reflect on particular content. Teachers also valued these discussions as significant opportunities to know their students' opinions and to get feedback about their understanding. For this strategy, teachers considered an active and protagonist role of the students because these classroom discussions were led according to their questions, opinions, and arguments, which matched students' inquisitive behaviour (see Chapter 3). For example, Teacher C_VIII explained, "Sometimes, it's a discussion that goes off on tangents about you know different aspects of the economy or whatever. Generally, my collaborative work is framed around, here is the question, solve it. Because that's the way economics works."

Students also valued practical lessons and activities, in which they could develop, connect, and apply their knowledge. Examples of practical lessons and activities included interactive activities, school excursions, science experiments, and individual and group projects. Practical lessons and activities helped the gifted and highly able student participants to consolidate their knowledge because applying theoretical knowledge was required for these activities, which made them enjoyable and challenging. To use their knowledge in applied and practical scenarios, students usually required a deeper understanding of the content knowledge, and memorisation was not enough to address the task. These practical lessons and activities were invitations to transform theories into practice and important motivators to better understand theories. Due to the practical component, students were easily able to recollect and connect content knowledge, which was helpful for their studies. Students played an active role in these kinds of applied activities through developing and connecting new content with past and future knowledge. Teachers, who acted as facilitators, included practical activities in their lesson plans to promote understanding and better learning of complex material. Student A_001 explained:

> My favourite classroom activities are the practical lessons because they are fun, yet informs you about all the theory work you need to know. So, it's a fun yet effective way of learning and remembering. Every time we are revising for a test and we don't remember something, one of our friends would say, 'Hey, we did that in the prac remember?'

Practical learning frequently included real-world applications and connections with students' lives. Having opportunities to discover new applications for the knowledge that they already had—which could be used in an innovative way, to find explanations, solutions or further understand real-world situations—was a highly valued experience for the gifted and highly able students. Moreover, school excursions were positive learning experiences for

students to apply their knowledge to the real world, transfer skills beyond the subject, and apply difficult content to daily situations or complex ones. This helped to add depth of understanding and make subjects more engaging and interesting for these students: "Practical activities where our knowledge of a topic is consolidated" (A_031); and "Using maths in an outdoor environment outside of our trigonometry guided inquiry, it was an interactive learning strategy and brought the concepts to life" (B_054).

Practical learning was also connected to students' lives, adding more significance and meaning to the content. This connection with students' lives required teachers to have a certain level of knowledge of their students (see Chapter 4) to be able to connect content knowledge to their interests, competencies, talents, and plan for their futures. These teachers explained:

> I think the key is finding their area of interest which really helps. So, a big thing here is cricket, a lot of our kids love it, it teaches statistics, it's really easy using cricket. Our kids love it, so I think picking certain areas for students that are having a bit of trouble that they can actually relate to, I think that context, the connection with the real world, really, really helps. (B_IV)

> I'm always looking for ways to find an angle in with a topic, and so I teach it to the best of my ability, and I'm always bringing in real life examples, and trying to integrate what they would do in their own life. So, economics is obviously about human behaviour, and therefore I'm trying to get them to be in the position of what we're talking about, what would happen, what have you observed? How does that meet with the theory, comparing, that sort of thing. (C_VIII)

Mistakes were used as a valid learning strategy to teach and as a critical tool for learning different things. As explained in Chapter 4, mistakes were redefined by teachers

identified as inspiring, as a positive element to improve students' learning, as a valuable part of the learning process and as a source of feedback. Some of these teachers used mistakes as a teaching strategy in their classes, especially in mathematics. Maths teachers tended to emphasise the importance of proofreading, and by the identification of mistakes, it was possible to keep students engaged and focused in the class and to learn that mistakes were a normal part of the learning process. Teachers highlighted important learning aspects from making mistakes and encouraged a positive attitude towards making mistakes and taking opportunities to improve their knowledge, which was exemplified by these participants:

> He didn't act as mistakes were the end of the world. He showed us that they were learning experiences and that anyone could make them. He would reward us if we managed to find a mistake in his working during class. (A_032)

> I've got systems where if I make a mistake and the kids pick it up they get a prize from it. So, if I do make a mistake on the board as I'm doing stuff from—off the top of my head, they get a Mars bar or whatever it is, if they can point out a mistake on it. So that happens so often, every couple of lessons or something I'll make a mistake with a plus sign, or a minus sign, doing things off the top of my head, but the kids like trying to pick them up and win a prize with it. I don't see that as a thing to worry about, we just fix it and keep going on. (A_V)

Group work was also mentioned as an important strategy. Opportunities for group work were provided in different formats: working as a team, supporting each other, having a common goal, and different tasks to achieve it; doing interactive tasks in which students represented particular roles to recreate a specific situation; working individually but having a group to ask questions; and working together as a whole class. Students valued when they worked with their classmates, especially with those chosen by themselves or when activities

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involved the whole class. These activities enabled student participants to share difficult problems or learning tasks, learn together, promote responsibility, and be exposed to a wide range of skills and learning approaches with others. It was important for these teachers to create learning environments in which students felt safe and comfortable to share their ideas, and to discuss freely with others, and demonstrate different thinking and learning approaches to their peers (see Chapter 4). Group activities promoted a sense of fellowship, as well as opportunities to collaboratively address learning challenges. In some cases, group activities involved friendly competitions, which was described by teachers and students as a positive motivator. These participants mentioned:

> I liked the group work involved, especially the creative tasks that we were able to do throughout the year. It is just much more exciting to learn something if other people depend on you doing your part and you need to produce something creative. (C_084)

> So, I have them in groups of three or so, doing this and they have to keep their work very private from the other groups. There's about six of them based on two small stories … and they're doing it on A3 paper and then I get them to put them up as a gallery at the front of the class and we mark each of the group's six graphs together as a class and there's these huge debates and arguments going on as people are trying to support their own model … and why their graph for a certain thing is better than another group's and it's hilarious. And they're sort of demonstrating all these things, and getting really passionate and excited about it, and what they don't realise is that these passionate sorts of excited conversations are about physics. (A_I)

> Finally, students valued their teachers when they shared stories with them. These stories were about their teachers' personal, academic and work experiences, about the subject or about other people such as former students. As mentioned in Chapter 3, most of these

teachers shared interesting and relevant stories about themselves with their students to highlight parts of the content knowledge and to motivate and engage the students in particular topics. Stories were used to illustrate particular content knowledge, decisions about the learning process, and learning related to the subjects. Sharing stories inspired and engaged students, which made the lessons more enjoyable and teachers were highly respected by their students. Teachers shared stories to create positive learning environments, to create better relationships as they personally revealed deeper information to break barriers between them and their students. For three male teachers, sharing personal stories was not a comfortable practice, so instead, they shared stories about the content knowledge or others, such as former students, to illustrate situations and to engage their students. Student C_085 explained, "all the students were intrigued by her travels and her previous working life. This often added to the learning experience as it would add a personal touch to the topic"; and Teachers also discussed:

> That type of experience has definitely helped them become more engaged and they ask questions and it's kind of that real-world application of geography and history where they can see that what they're learning is actually going to play a part in how they interact with people outside the classroom. (A_II)

> I actually don't. Hardly ever. Teaching's not actually all that natural for me in the sense that I'm actually highly introverted. Like, seriously introverted .… the idea of talking about myself in front of the class is actually rather difficult. So, I hide behind the theory, if that makes sense. I'd much rather talk about the story of the numbers, as opposed to the story of myself. (C_X)

Characteristics of strategies and activities

The different strategies and learning activities used by these teachers had six main characteristics: provided enjoyment, made for a challenge, enabled diverse questions, provided options, opportunities for metacognition, and afforded less structure. Students acknowledged activities that involved enjoyment and facilitated their learning. As mentioned in Chapter 4, learning and having fun in these classes were considered parts of the same process. Students considered enjoyable activities such as subject-related games, quizzes, and friendly competitions, interactive activities, the learning of fun facts and the unpredictable behaviour of their teachers. Students valued and enjoyed these activities because they were engaging and interesting, and helped them to improve their learning because they were intellectually challenged:

> Generally, on Fridays we had a rest from normal work and played a maths related game or competition. I really enjoyed this, as it was something to look forward to, and it was a lot of fun, but still involved maths. (A_038)

> My favourite activities are when our whole class participates in a kahoot quiz at the commencement and completion of a topic, it is an interactive way to learn and revise, and the friendly competition encourages all students to put in the effort required to reach our full potential. (B_054)

Intellectually challenging activities were promoted by teachers identified as being inspiring, and were valued by the gifted and highly able students. Teachers remarked that to intellectually challenge their students, it was important to know them in academic terms. These intellectually challenging activities were considered invitations to go beyond their comfort zones, to try new ways of doing tasks, and to try harder to address new and difficult goals. Intellectually challenging activities were sources of motivation and engagement, which

encouraged the students to challenge themselves and to work together with their teachers to find new answers. Additionally, help was available to students when required and their teachers were available to demonstrate their knowledge, curiosity, and willingness to help their students (see Chapter 4). Students mentioned: "The teacher definitely made the subject something I wanted to learn and was challenged and motivated without being overly stressed or worried" (B_033); and "Always encouraging us to go beyond the school curriculum and engage in our own explorations of topics that involve higher-order thinking" (C_073).

These learning activities provided opportunities for student participants to ask as many varied questions as they wanted of their teachers or classmates. These questions enabled and facilitated a curious approach, which was valued by the teachers. Inspiring teachers had a deep knowledge of their areas of expertise and were able to answers students' challenging questions or be willing to learn together. The students' inquisitive behaviour was considered an important input for lessons to develop and guide the content knowledge and its depth, as well as to promote research skills (see Chapter 4), as these students mentioned: "When he answers questions but not completely, to leave you to answer it partly yourself, additionally he would twist his answer into a question to probe your mind further" (B_050); and "Questions were encouraged, and often led to fascinating class discussions" (C_077).

Providing learning options and giving their gifted and highly able students opportunities to choose according to their interests and abilities was understood to provide freedom and independence, and to demonstrate that teachers valued students' voices, as they trusted and respected their students and their ability to self-regulate their learning processes. These opportunities included different ways of addressing tasks and presented different kinds of activities to student participants. Having opportunities to choose among different options was valued by the students, who acknowledged that this practice enabled them to learn according to their individual learning approaches and to challenge themselves. As these

students explained: "The ability to choose gave me a reason to give more effort as I could learn more about something I cared about rather than having to learn about a topic that garnered no interest" (A_007); "Different students study or stay interested in a topic differently, and this class explored so many different ways of doing so for each learning type" (A_011); and "When he explains how to do a particularly difficult question on the board and gets us to all try and figure out the answer before he shows us multiple methods of solving the problem" (B_026).

Learning activities were also characterised as positive opportunities to develop metacognitive skills. Participating teachers explained metacognition to be an important part of their teaching approach. It was used as an important strategy to help gifted and highly able students to reflect and learn about their own thinking processes and approaches. Metacognitive thinking was associated with other higher-order thinking abilities, also important in teaching gifted and highly able students, as these participants discussed:

> He often got us to individually work on questions and then present our answers on the board. Since we were doing proofs, this made sure we fully understood our method. I found it fun to explain my steps to him and the other students. (A_035)

> You get this with SEAL maths students all the time, that they solve a certain problem in a way that comes naturally to them rather than in a way that's taught to them by the teacher because they'll have had a lot of prior—their prior understanding of mathematics before even encountering it in class. And, if you're teaming them up on a little assignment with a student who thinks very differently to them they're forced to explain their rationale and their thinking. (A_I)

Teachers identified as inspiring used different strategies to promote metacognition: by encouraging independent thinking, by asking students to articulate their thinking or

reasoning, and by helping students to enhance their learning. Thinking independently was considered critical to help their gifted and highly able students to gain deep understanding. Motivating their students to develop their own opinions, arguments, and reasoning was helpful for them, and students were given opportunities to actively demonstrate their arguments in classes. Teachers often modelled this behaviour by articulating their own points of view, creating environments in which students felt comfortable with expressing themselves. To provide solid arguments, students were motivated to conduct research using reliable sources, thinking critically, listening to others carefully, and speaking confidently and effectively. Additionally, teachers sought ways to improve their teaching methods to help students enhance their learning, which was valued by the students and highlighted that these teachers made extra efforts to provide help to them. For these gifted students, knowing how to learn better involved learning ways to develop different assessment tasks such as writing arguments in essays and report writing. Therefore, these teachers were teaching more than just content knowledge to their students:

> Proofreading is metacognition right. I do a lot of narration as I do things. If I'm writing stuff on the board, if I'm trying to solve $X+3/2=5$, I won't really say something like we times both sides by two. I will try and give them insight into what my process is in my brain. I will try and get them to do the same when they are thinking about it. I will get them to do things like annotate mistakes. So, when they make a mistake, they actually go through and write what they were thinking and where they went wrong. (A_VII)

Finally, strategies and activities were characterised by being less structured, yet structured well enough to provide guidelines. By doing this, teachers offered opportunities to their gifted and highly able learners to be creative, use their strengths, be challenged and develop new skills. With these kinds of activities, students had a wide range of possibilities to

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address tasks and teachers organised their lessons in ways that their students played an active role, with time to apply the knowledge, and work with their classmates:

So, the first chemistry prac that my Year 9 SEAL students do at the start of the year; they're used to getting a prac sheet and say do this, do this, do this, do this and then answer these questions. And my first chemistry experiment is, this is the concept that I'd like you to explore, here is a massive list of the chemicals that I have—and apparatus that I have available at your disposal, now write the experiment that you want to do. And, they're like what? Where are the instructions? where are the step by step methods? (A_I)

I'm doing an assignment on the Roaring '20s and I've said to them, 'You can choose any topic you want on the Roaring '20s. It could be the rights of women. It could be makeup or flapper dresses or jazz music or whatever, or the inventions of the 1920s— and you need to do a bit of a presentation to the class. But then you can do whatever else you want on top of that. So, it could be a movie, or a fashion parade or you could perform some jazz music or you do what—whatever you can think of. I give them as much choice as I can so they can pick something that interests them. I want them to be interested in the subject. If they're not interested, I'm not doing my job. (C_XI)

In addition to these characteristics—and considering teachers' willingness to address the educational and socioemotional needs of their gifted and highly able students—teachers identified as inspiring established different success criteria, demonstrating that these teachers were able to identify students' strengths and areas for improvement, as well as awareness of students' workloads to adapt and adequate the activities (see Chapter 4). By setting different success criteria, these teachers helped students to be challenged according to their abilities and contributed positively to their self-efficacy:

I guess just allow them a chance to be challenged at every point. So, if it's a low effort student for them obviously the point of which I would say they've experienced success would be a lot lower than for somebody I know is a very driven and very highly capable student. So, it's just about setting the success criteria differently for different students and being able to be quite flexible with that. It might even be that I might have highly capable, high effort student who I know in these two weeks they are having a lot of work from other subjects, so I'm fairly flexible about them dropping this criterion. (A_VII)

To address gifted students' educational needs, inspiring teachers considered it important to pay careful attention to students' feedback, which contributed in an important way to improve their role as teachers and the effectiveness of their classes. Teachers understood this feedback as critical information and considered that having positive relationships with their students helped to ensure honest feedback. As Teacher A_II explained, "That's a really important element of being a teacher, particularly for SEAL students who will tell you straight out, you do this very well, or there's … So, I think they're very, very comfortable with telling teachers."

Feedback was obtained through formal and informal methods. Most of the teachers developed formal strategies to receive feedback, including student surveys, adding extra questions at the end of tests or requesting confidential feedback within the class. Teachers also had informal strategies usually related to their ability to 'read' the class. Examples of informal strategies included paying attention to their faces and response levels, and reflecting on the questions asked by students during lessons. Few teachers mentioned that they did not use formal strategies to get feedback, but were always using informal options because they were aware of the importance of paying attention to students' reactions, engagement, and willingness to learn and participate. Formal and informal strategies helped these teachers to

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gather valuable information with the aim of improving themselves as teachers and their

teaching practices, as well as developing their students' potential:

> The best way that I've learnt to teach for them and for what they want is to listening
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> to them but also explicitly asking them to write down feedback. So, they get a chance
>
> at the end of each term to tell me what activities they liked. Oh, sorry, not what they
>
> liked, what helped them learn, what they found difficult, what they'd like to see less
>
> of in class …. I think what's helped me prepare them better is listening to what they
>
> want. (A_II)

> It's all about just reading the faces, reading the class and I always do a lot of surveys
>
> and, the students hate surveys but I always do little ones here and there to say are
>
> comfortable with what we're doing … did you want any more higher end work, do
>
> you want to be pushed further, did you want more depth in that area, so I'm always
>
> getting feedback from the students so I'm always reassuring myself that I am doing
>
> the right thing and identify if I've alienated any students or if they're not feeling
>
> comfortable … The best one I do and it can happen in any single classroom … They
>
> put all their heads down on the table and they shut their eyes and I just ask questions,
>
> like okay who's not feeling comfortable with this, and the moment their eyes are shut
>
> and their heads down on the table, they open up and they're fine.(B_VI)

Preparing Students for the Future

Teachers identified as being inspiring, invested time in understanding their students'

learning approaches and educational needs, as well as time taking care of them. This was

related to the idea that their gifted and highly able students deserved an adequate environment

in which to learn and develop their potential. Some teachers manifested their beliefs and concerns, about this, as these teachers explained:

> So, these students come into Year 7 at our school and I see the relief that comes from them finally feeling safe in an educational setting. And that's ridiculous that that happens when they're like 12 to 13 years old, like they needed to have that from pre-primary school. They deserved that from as soon as they were learners, which is when they were born. They deserved that. So that's challenging seeing their needs not being met so often, and seeing the damage that that's done to them. (A_III)

> We just had orientation for the new Year 9s and I said welcome to [this school] this is where science is queen, and you're going to love it because we do science all the time, and you could see by their faces, they're like yes! Because in their other schools, if they even mentioned in the other schools, that they've come from, if they mentioned that they liked science they'd, probably get bullied. (B_IV)

As mentioned early in this chapter, teachers identified as being inspiring developed expectations about their students according to their characteristics, strengths, and interests. These realistic expectations helped teachers to motivate and guide the work done with their gifted and highly able students. Additionally, these expectations allowed the teacher participants to visualise future knowledge and skills required by their gifted and highly able students in their upcoming academic, professional and personal lives, and adapt their teaching approach and goals, activities, and challenges:

> So, I think it figures into the idea that, they're going to become critical thinkers. They're going to have to work hard. Not everything is just going to be handed to you, and that we're trying to build up a skill, not just learn history and memorise dates, but we're trying to build a skill that will help you, and often—particularly in this

semester, often I say things like, this will help you in science when you have to write a report, or this will help you when you're doing an experiment and you're a doctor and it's not working. (A_II)

What is important to me is that the students walk out of here with an open mind, with a creative and critical approach to their thinking, that they don't get stuck, and they're not intellectually lazy. What I want is people who you know, are flexible in their thinking. So, to me, that's my ultimate goal that I've got, that girls walk out of here and they approach their learning in a different way. (C_VIII)

Strategies to teach above and beyond

Teachers identified as inspiring, were able to teach beyond what was expected of the curriculum content. This meant that by having them as teachers, gifted and highly able students were able to develop skills, knowledge, and connections above and beyond what was expected. These teachers worked through different strategies to help their students go above and beyond the expected curriculum. These strategies were divided into four groups: using tangents, questions, creating a big picture, and connecting future content.

Tangents

Tangents were a valuable strategy for teachers and students, and were perceived as desirable and important. Going off track in matters related to the main topic—but clearly not contemplated as part of the curriculum—was understood as a way to spark students' interest in the topic and keep them engaged. For example, Student C_072 mentioned that "sometimes he dips off into tangents about the topic, which are not exactly on the curriculum, which actually create more interest". Additionally, Teacher A_VII explained:

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A lot of the time, especially in an elective like this one, there will be a lot of off topic questions, I know some teachers prefer to shut those down and try to focus. I tend to engage with those questions quite a lot, but often that will result in some extra work for the students. If they ask a question, they know they have to be willing to do the work as well, that works pretty well.

Teachers argued that being off track did not necessarily mean being off topic. Teachers also used tangents as a way to address students' questions, including time for tangents in their lesson plans. This demonstrated that teachers expected their students to ask interesting, in-depth, and frequently unexpected questions, displaying their divergent thinking. These participants explained:

Often, she'll finish teaching for the class a bit early, and then in response to a question or a specific area of the lesson she'll go off on a tangent about some interesting way to apply the concept, or something it relates to and I really love that. (C_078)

I really don't mind being led down a tangent because it's always related to the topic, and tangential discussions are the most valuable ones because it connects the topic being discussed to their daily lives. They've asked this question that's led us on this tangent because something within the content of the lesson has sort of sparked an interest because it's connected in some way to something they've heard or said or done. I always factor them into my timing of my classes that I know what I want to get done and if I have a 50-minute lesson I'll probably plan about 30 minutes of content that I want to get through so that I have that time for tangents. (A_I)

Questions

Questions were described as a main component of the learning environment and a valuable approach to go beyond the expected content. As discussed in Chapter 4, students emphasised that they felt comfortable in these classes to ask all the questions they needed, without being judged, criticised or made to feel uncomfortable. Teachers and students understood that a high amount of questions was a positive sign as it extended students' thinking about topics and increased their understanding, which led them to go beyond the curriculum to look for new and interesting answers:

I love those conversations in the class where we're talking on the topic that create those questions in the student's mind, and sometimes those questions will be answered by subsequent lessons and sometimes not. And either way it's a learning experience because either they have to find it out or, I have to find it out, and I like them to feel like while I have a beginning and an end in mind to a topic, that cover the process in between, (it) is actually still quite open. (A_I)

The aspect I like the most is, when I'm in front of the classroom and a student, is really engaged and I can tell that they're interested and they start … they move from just the questioning and answer thing, to want to get involved in a discussion, and they want to know more about something, and they want to go off on that tangent, and they want to think about different ideas. So, I really like that moment of teaching and I think sometimes we get really stuck in curriculum stuff, and I think that's not always beneficial for SEAL kids—in particular SEAL kids. That's probably the aspect I love teaching at the moment, and when I'm up the front, and what I like the most about it is when I see them just go off and explore. (A_II)

Teachers enjoyed the questions these students asked because they demonstrated that the students had extended their thinking about the content, were able to make new and interesting connections with their own interests, which would lead them to new discoveries and learning. These questions revealed students' levels of engagement with the topic and resulted in interesting and productive class discussions. They also revealed students' knowledge and interest to learn more, and in a more complex style, which enthused their teachers, who often addressed questions by including additional material. As illustrated in the last two excerpts, these questions frequently led to tangents, which was positively rated because it extended students' thinking and learning. Teacher B_VI also discussed the importance of respecting and encouraging students' questions and interventions in class:

> If they've thought of something interesting and they want to share it you don't shut it down. If it's something that I don't know anything about, then I love that because when I was a new teacher I hated that of course, but now I love that because you know they'll say, oh miss you know blah, well I was reading this thing the other day and what about this and I love that.... Tell me all about, oh okay, oh I don't know if that sounds quite right, do you really think that's true, let's look it up, so because they've all got laptops you know they search stuff up all the time.

Being well prepared to answer these many and diverse questions worked as a motivator for teachers identified as inspiring, to do extra research to provide effective answers. Teachers invested extra time in lesson preparation, extra reading, and creating activities to trigger their gifted and highly able students' interest and questioning behaviour. As explained in Chapter 3, these teachers were considered knowledgeable teachers and they modelled a research behaviour with their students, which engaged them to conduct research to find answers that were new to them:

For the SEAL kids in particular I do a lot of, extra reading because I'm sure there's going to be questions. Again, they know I don't know everything but there's going to be questions that come up. So, I like to do a bit of extra research on whatever topic we're looking at. (A_II)

Big picture

Questions also allowed for making connections between past, present and future knowledge, with which teachers were able to create a big picture that enabled student participants to have broader and more in-depth understanding of the topic being taught. In some cases, these connections were developed from particular topics or they started with a broad theme and then worked on specific matters. In both ways, students were able to develop a more complex understanding by using deductive and inductive approaches. Establishing these connections was useful for students' approach to their learning, their interest and passion for learning, and for their creativity and curiosity. Participants explained: "[This teacher] has the ability to relate course content not only to current affairs but make other connections that were not evident—attuned to students' interests" (C_080);

So, there's usually a recap. Then I introduce whatever our new topic's going to be, or what we're focusing on for the day, and link that back to the bigger picture. So, we're currently working on outlaws and convicts in Australia, but I make sure at the beginning, to introduce this is how it links back into building a nation or, what we've already done on Indigenous history, and things like that …. So, what's going to come up in the next lesson or the next week, and how it's all going to link together … draw a bigger picture. (A_II)

I guess we start everything with a big picture. One example, we looked at

homelessness in Australia and abroad so that was our big picture. We did a lot of data

and analysis and so on. But, you know, something that wasn't directly involved with

that particular project might have been something like looking at reasons why people

become homeless. So that wasn't really part of the thing that we were looking at, but

it's interesting, it's sort of within the scope of what they were doing. If they wanted to

research that, and add it as an addendum, that was fine. (A_VII)

Creating this big picture helped students to bring the real world into the classroom

because these connections were frequently fed through current issues such as politics,

education, the economy, and health. Further, students were able to use their classroom

knowledge to understand the real world by going outside the school context. These

experiences motivated student participants to be more critical and reflexive, especially when

addressing complex social issues. By providing learning activities that enabled the

exploration of the crux of these connections, teachers promoted extended, in-depth, and

diverse understanding of different topics, which made sense of past and current knowledge,

and engaged students with future content:

So even though for example we've been doing Indigenous history, and Indigenous

from the beginning of all their dreamtime stories up until about 1960s, we've also

gone off and done what it is to be an Indigenous person today and the struggles that

they face so they get a bigger idea of why it's important to understand their past and

their culture for today, and so I think that motivates them when they can see there's

real-world application to it. (A_II)

Connecting to the future

Connecting current content with the future was understood as an important way to engage and motivate their gifted and highly able students. Due to the students' ability to make connections between different subjects and between past, current, and future content knowledge, these teachers considered that future perspectives were important for teaching beyond the expected curriculum. Teacher participants used two different methods: providing a preview of future content and developing important skills for future academic behaviour.

These teachers regularly established links with future knowledge and often provided a preview of content that students were due to learn the following semester, year or even at university. In providing a preview of future content, usually as part of an explanation or answer, these teachers engaged their students' curiosity to learn new and more complex content. Many students were required to think of fresh questions or undertook additional research to gain a deeper understanding, which often led to more questions. Students presented optimistic answers when teachers talked about content in relation to the future, demonstrated enthusiasm to know and to be involved in this field of study in the future. Likewise, teachers worked as an inspiration for the students and stimulated ideas about possible future career paths (see Chapter 6). For example, Teacher A_V explained:

> Because I've taught a lot of the senior years of the year 9 and 10 maths—they can often get to the next level without actually being taught it because they can see where it's going in Year 11 and 12, and probably university level and they see where it could be extended to. So, we can go into that in Year 9, 10. In that Year 11 maths class, they'll ask a question and I'll say, oh that's in a Year 12 course, so here it is. You'll see this next year, or you'll see this when you do Year 12 maths methods. Then same thing from Year 12 to first-year uni, they'll sort of say oh what about if we did this? You can say, yeah that's coming up in your first-year uni course. Here's a quick

rundown of it, and then we can do that for a few minutes. Then if they want to go further into it they can obviously do that with me later, or they can do it on their own, and look it up.

For these teachers identified as inspiring, developing relevant important competencies for future academic behaviour was considered a critical part of their role as teachers of gifted and highly able students. Teaching a wide range of skills—that students were able to use in their current and future studies, at work and in their personal lives—it was essential to equip students and help them to prepare for future challenges. Teachers used strategies to promote meaningful learning, and these strategies promoted the use of three interrelated kind of skills: study, work, and psychosocial skills. The development and practice of these skills came from teachers' advice and experience, direct teaching or by intentional modelling:

> After one class she had come up to me and told me how learning doesn't have to take place just in the classroom …. This piece of advice which she had given to me helped me realise that learning, although centred to some extent around the classroom, is an independent process. I realised that you couldn't just turn up to class and expect that everything will somehow get ingrained in your brain, but rather you had to put in work in your own time. (C_075)

> I want them to have an overall understanding of the topic and I sort of model this when I get them to do presentations within the class that, I say 'you—you've seen how I sort of a teach a topic to you. When I'm sort of giving you the task of teaching the topic to your fellow students I want you to do it in the same way. I don't want you to be reading off notes' (A_I)

Teachers attributed a critical role to study skills due to its importance in effective learning and for the future, not just in their academic lives, but also in work and general life.

Additionally, teachers considered that their gifted and highly able students had high intellectual abilities and potential for high achievement, and these study skills helped them to improve as learners. The most mentioned skills related to writing and speaking, listening and note-taking, mnemotechnics, research, organisation, and discipline. Writing skills were empowered by teaching students directly, through feedback, and by modelling different strategies and styles, demonstrating to the students how to improve and how this could be important and useful for their futures. This was observed in different classes, for instance:

> Teacher had a power point presentation with ideas for his students on how to improve their writing in terms of vocabulary, sentence structure, and format. This presentation was part of the feedback teacher gave the students after marking their essays. Teacher reflected with their students on the importance of writing skills for their future. (Obs C_IX)

Some teachers used scaffolding to teach a specific skill gradually, while students were doing activities or assessment, such as essays or extended pieces of writings. Teachers provided feedback on how to improve students' writing skills in terms of structure, words, and sources used, providing their advice and having discussions with their students about their writing. For example:

> She would be willing to help us write extra essays in our own time and would give us plenty of advice and notes to further extend our French. I would bring her an essay or a piece that I had analysed, and ask her questions about interesting phrases or words I had found. (C_075)

Speaking skills were taught in a similar manner to writing skills. Teachers identified as inspiring provided feedback and directly taught students how to develop and improve their speaking skills, especially related to public speaking. These teachers used engaging strategies and materials to help their students, and promoted challenges and self-challenges to keep

students motivated, and actively involved in their learning. For these reasons, asking questions and voicing their opinions in classes were considered critical classroom engagement strategies to be an effective learner and to practise their speaking skills:

> I really enjoy the class discussions because they help me improve my speaking and listening skills, and they allow me to ask questions so I can understand the content really well …. I have developed the ability to express myself more confidently in class, and I now feel less nervous or shy about speaking in class, and less worried about messing up. (A_039)

> He would also encourage us to do more public speaking, picking out ideas from the class discussion and asking us to write and perform speeches about our takes on the matter. Which was great practice, lots of fun and helped me see the viewpoints of my classmates better. (C_084)

> A lot of the girls are quite shy about getting up to speak with a formal presentation. So, I give them quite explicit lessons on how … I say, 'Look girls this is how I've done it. You know, I've done all this public speaking. Hold something up here. Don't look down here, and don't have your iPad here. Like don't speak from iPads at all, you know?' And I give them a couple of lessons every year where I take them outside into the oval or something and we take really inspiring speeches like John F. Kennedy giving a speech or Martin Luther King or something. And the girls have to read the speeches out to each other in pairs a long way away from each other so they have to project their voices and I wander round, you know, giving them help so it's good practice. (C_XI)

Teachers identified as inspiring also helped their gifted and highly able students to develop listening skills, which were useful for their learning as well as work, and social skills. Learning and practising how to listen actively and respectfully when others were speaking was considered an important skill. Additional skills included effective involvement in discussions, addressing questions, and the development of valid arguments. Further, listening skills were related to note-taking, which was acknowledged by teacher and student participants as a useful technique that involved the ability to identify and summarise the most relevant information. Students learned that effective note-taking could save time and improve study efficiency. These students mentioned: "I now try and take notes that are easy and understandable to me, and don't always copy things down word for word" (A_040); and "Taking notes in different ways that would assist our learning and study later on" (B_034). Teacher B_VI discussed:

> One criticism I get about my power points is that there's not enough notes in them. And I say to the kids well it's down to you to take the notes. That's your job. But we discuss that at the start of the year and then I remind them constantly, that yeah [this teacher] puts up all these graphs and all the images, all these diagrams, but why is that picture in the power point, well if you listen then you'd know why that was there and you would have written down some notes about it, and you've realise that [this teacher] has used that as a way of teaching you about this particular concept, I just don't put random pictures in a power point, well occasionally I'll put little cartoons just to have a laugh.

Even though these teachers identified as inspiring had an emphasis on understanding over memorisation (see Chapter 4), they still acknowledged that memorisation was an important study skill for their students. They explicitly discussed how to improve these skills

with their gifted and highly able students by using mnemotechnics and the organisation of information in a manner that was easily accessible when required. For example:

> Teacher invited six students to participate as countries, while they were explaining and recreating the conflicts and alliances during World War II. Everyone in the class was engaged and payed attention. At the end of the activity Teacher A_II explained to the students that now, they can easily remember the story by thinking about their classmates. Students agreed with this argument. (Obs A_II)

Note-taking was also considered a positive strategy to improve memorisation and to easily recall information. These students explained: "As well as the history assignments, or essays weren't just about remembering facts, she would also teach us how to write the essay and how to take and remember the notes. While some teachers just make you remember them" (A_011); and "I also like taking notes from presentations, as I feel that summarising and writing notes in that way is a very effective memory strategy" (A_012).

Research skills were also considered important due to their multiple benefits and future implications. By conducting research, these students learned how to be independent learners, look for answers beyond what was required for their subjects, and develop a strong curiosity and interest in learning. Due to students' inquisitive behaviour, teachers mentioned that they promoted the use of research skills in three different ways. First, teachers highlighted the importance of using and connecting multiple sources of information by conducting activities and assessments that required research. Second, by modelling research behaviour, these teachers actively looked for new answers when they did not know about a particular content (see Chapter 3). Their research was also evidenced in their teaching approaches, as they encouraged their students to look for answers, and to be informed, which was valued by the students. Finally, these teachers encouraged and promoted independent

research behaviours, motivating their students to use their own time to learn more deeply about topics of interest. These participants explained:

Even if it's essay writing or something like a bushranger which they're probably never going to need to know but there's the idea of critical thinking and these research skills will help you later on. So, I think being transparent with SEAL students motivates them quite a bit. (A_II)

I thoroughly enjoyed it as it was a form of engaging us with the historical figures while encouraging us to do our own research. It was a massive hit with my class …. After interacting with [this teacher] I feel inspired to research in my own time and continue with my love for history. (C_067)

Teachers also promoted organisation skills, especially related to time management, discipline, and work style. These teachers provided strategies to help their students to use their time effectively and efficiently, especially during exams. These organisational skills provided strategies focused on the future of their gifted and highly able students, such as being better prepared for exams, senior years in secondary schoo,l and university. Most of the teachers emphasised that they were not teaching their students only for exams. Instead, they aimed to provide strategies for their students to be prepared for exams in terms of knowledge and coping, knowledge, and stress management strategies. Additionally, by respecting students' pace for work, teachers enabled them to learn how to manage their own time. Participants mentioned: "You work at your own pace. This is good because you learn how to manage your time" (A_022);

His preciseness about using time, e.g., how to shorten down every second that you spend on each question, so if you use 5 seconds less time/question on a 60-question

test, you'd save five whole minutes, which could be used to check over the test, finish more questions, etc. (A_066)

The other part that I think for the SEAL class helps to make it challenging is that because I teach VCE I know where these skills are going for them and everyone in my SEAL class. They want to go to university … that's not true for all of my other classes, but for SEAL they all want to do well in VCE, and they all want to go to university, so preparing them for that is a big part of my job because that's what one of their goals is, and that's the system that we work in as well, so even though chronologically they're in year nine, but then they're in an accelerated program so they're often working above that age group already, a lot of them are already close to the Year 12 skills. (A_III)

In addition to study skills, teachers identified as inspiring promoted the development and use of skills and behaviour required by their gifted and highly able students in their possible future jobs. Some of the skills and behaviours included responsibilities, teamwork, and creative and critical thinking. Promoting responsibility was in consonance with the idea of treating their students as adults (see Chapter 4). Teachers required their students to meet deadlines, do their work, and share responsibilities with their classmates. Working in teams was a valuable opportunity to promote the skills that these students will need in most occupations—completing particular tasks with a common goal, in which communication with other members was critical and required good organisation and discipline. Additionally, these teachers encouraged critical thinking skills, gave opportunities to their students to make informed decisions, ask questions, and to judge better methods and strategies to achieve particular goals. As these teachers discussed:

For this elective, there was a lot of group work, there's a lot of structured group work. It might be for one project I assign a leader for the team, I assign specific roles and they just have to execute and deliver as a team. So, this subject was basically intended to be fairly cross-curricular. We were kind of trying to model the way, I guess, modern tech-type industries would work. So, lots of kind of break outs, lots of teamwork, lots of online collaboration, all that sort of thing. (A_VII)

Team work is important and that's where when we do pracs and when we do some of the larger pracs and they all have to cooperate with each other in collecting the data, and sharing the equipment, and all that sort of thing so they get an opportunity to develop all of those skills. (B_VI)

Finally, teachers identified as inspiring encouraged their gifted and highly able students to develop psychosocial characteristics and skills, which were significant and useful for them as students and for their future learning, helping them in the ways they interacted with their social environments. Teachers encouraged honesty, modelling this behaviour to their students in various ways—for example, when assumed that they did not know a specific content or answer. Some teachers used this characteristic at a personal level, expressing their positive feelings to their students and sharing their own stories. In the same way, respect was promoted and demonstrated as part of the learning environment that students experienced with these teachers in their classrooms (see Chapter 4). Teachers promoted and facilitated respect by giving opportunities to everyone to speak or ask questions, and being supportive when someone made a mistake or did not know a particular answer. Students described these teachers as highly respectful and optimistic, working for them as positive role models: "My interactions with my peers were changed due to the teaching strategies. I was learning to respect all the work that everyone does to save you time researching it yourself" (C_085);

If something goes wrong or something, you just fix it and you move on the next day, it'll all sort of work itself out. If something happens, just go around and fix it. Similar sort of attitude to school and teaching, you try things out and if it doesn't work then you learn next year that you teach the same, the same topic next year—you don't do that again. (A_V)

Further, teachers identified as inspiring promoted psychosocial skills and behaviours considered important for their students' lives as informed and critical citizens. Teachers identified as inspiring wanted their students to be responsible, able to make decisions, and to judge critically their behaviour and actions. These teachers explained: "I think it's actually just training for … to be a democratic citizen. To actually be someone that can actually function, and not be tricked (C_X);

I love further maths because it's financial maths, it's statistics and every time you pick up a paper, every time you go to, if you do a science degree anything like that you're going to come across statistics, and this is just helping you to become a more informed citizen and they really buy into that, the financial maths is, they've finally made it compulsory in further maths to teach it, and it's the best thing that they've ever done because everyone needs financial skills in some way. (B_IV)

What is important to me is that the students walk out of here with an open mind, with a creative and critical approach to their thinking,—they don't get stuck, and they're not intellectually lazy. What I want is people who are flexible in their thinking. So, to me, that's my ultimate goal that I've got, that girls walk out of here and they approach their learning in a different way. (C_VIII)

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Summary

This chapter has outlined the category conceptualised as *teaching above and beyond the recommended curriculum.* It explained the experiences and strategies used by the teachers identified as inspiring to teach their gifted and highly able students beyond the prescribed curricular guidelines. Two interrelated subcategories emerged: facilitating meaningful teaching and learning, and preparing students for their future.

The first subcategory emphasised the meaning of being a teacher of gifted and highly able learners, highlighted the different meanings associated to their role as teachers of the gifted, associated to positive feelings when teaching these students. Additionally, this chapter explained in detailed the students' preferred learning strategies, which include classroom discussions, practical lessons, mistakes as learning strategies, group work, and teachers´ stories. These activities were enjoyed by the students, provided challenge, generated questions, provided options and opportunities for metacognition, and were less structure. The second subcategory reflected on the importance of preparing gifted students for the future, explaining that these teachers were teaching above and beyond the recommended curriculum by using tangents, questions, creating a big picture, and connecting students with their future. The next chapter will present the theory—*Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students*—which is grounded in the participants' experiences.

Chapter 6: Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students

Chapter Overview

This chapter presents the theory that emerged from the experiences, actions, and meanings of participants. The theory—*Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students*—is explained through three interrelated phases, the three categories presented in Chapters 3, 4, and 5, as well as contextual factors which mediated the core process. The three phases demonstrate the effects of the interactions between teachers identified as inspiring and their gifted and highly able students, including *expanding knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action*. These phases were connected through the challenge and support provided to students by these teachers. Additionally, four contextual determinants were found to be important to better understand the phenomenon: students' developmental characteristics, school cultures, curriculum, and gifted educational provisions. This chapter proposes a theoretical understanding of how teachers inspired gifted and highly able students. This theory was developed following a rigorous process of coding and constant comparison of data, codes, and categories.

Overview of the Theory

Following constructivist grounded theory procedures (Charmaz, 2006, 2014), the theoretical construct—*Opening new possibilities: Teachers who inspire gifted and highly able students*—provides knowledge and understanding of participants' processes and actions to comprehend the central phenomenon. Teachers identified as inspiring by their gifted and

highly able students were willing to address the educational needs of their students, which had a positive impact on their academic lives. Therefore, these teachers, their characteristics and the strategies they implemented, provide a useful framework for current and future teachers in the field of gifted education.

The theoretical model presented in Figure 6.1 provides a visual explanation of the theoretical framework and illustrates the interplay between the components of the theory presented in this chapter. This theory needs to be understood alongside a consideration of the students' characteristics described in Chapter 1. The theoretical construct is composed by two main interrelated concepts. The first—*Opening New Possibilities*—is based on the conceptualisation formed by the majority of the gifted and highly able student participants, who considered that inspiring teachers helped them to discover knowledge, meanings, ideas, and actions that they were not aware of before undertaking classes with them, even when they were highly interested in the domain which was taught. As Student A_066 explained, "Inspiring teachers present information that opens up new possibilities that was previously non-existent to you, or you were not aware that it existed". Widening students' knowledge, attitudes, and actions towards the domain appeared to be the aim of teachers identified as inspiring, who by being encouraging, engaging, and knowledgeable, positively affected the possibilities that students were able to foresee in their futures. According to the Concise Oxford English Dictionary (Soanes & Stevenson, 2004), *possibilities* is defined as "unspecified qualities of a promising nature" (p. 1120), which fits with the model presented in this chapter due to it not being possible to accomplish all options or actions visualised by the students, especially those relating to their long-term plans.

The second part of the theoretical construct—T*eachers who Inspire Gifted and Highly Able Students*—is interpreted in conjunction with the first concept— *Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students* (see Chapter 1) was

used, based on the work of Thrash and Elliot (2003, 2004), who concluded after several studies that inspiration has a tripartite conceptualisation: *transcendence, evocation,* and *motivation.* Transcendence is directly related to the first part of the theoretical construct, regarding the idea of inspiring teachers opening new possibilities to their gifted and highly able students. The second element, evocation, reflects the role of the teachers identified as inspiring in the association of the subject and the field with positive experiences. As Thrash and Elliot (2003) argued, "we are inspired when a mentor or role model reveals new possibilities that we would not have recognised on our own" (p. 871). Motivation explains the gifted and highly able students' interest to undertake actions, which were encouraged by the teachers identified as inspiring.
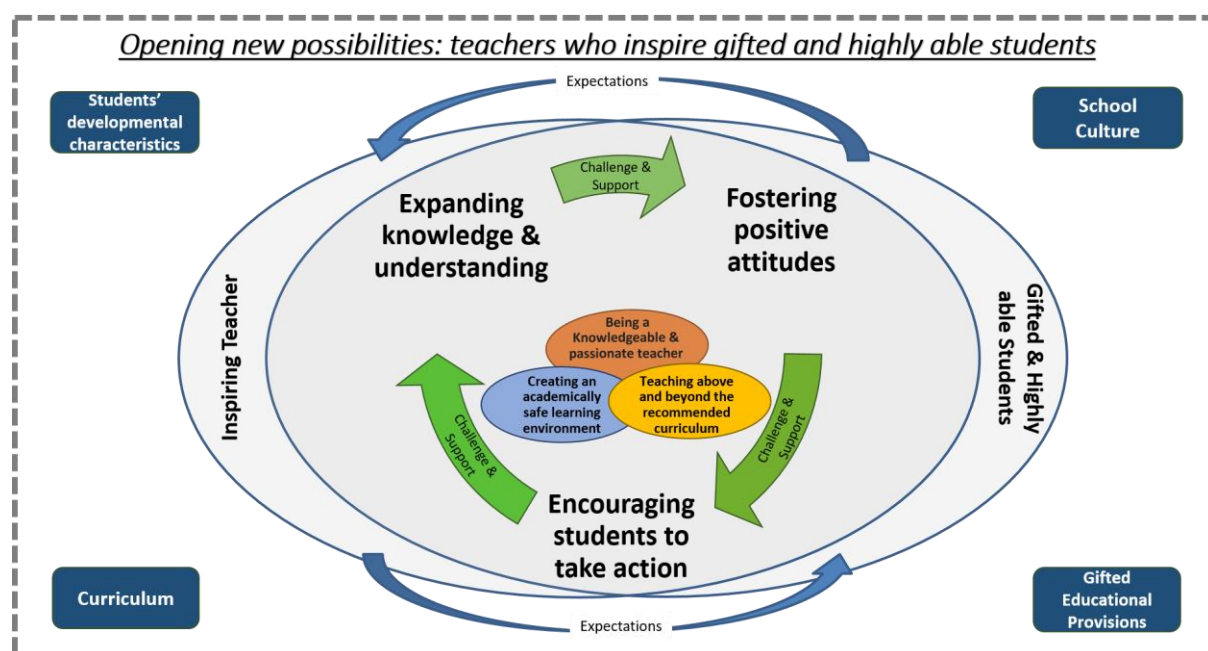
Figure 6.1. Visual representation of the core process

The theoretical model presented in this chapter, reflects the meanings, actions, and interactions between teachers identified as inspiring and their gifted and highly able students, and is graphically explained in two main parts (see Figure 6.1). In the first part, two intersecting ovals—as in a Venn diagram—represent the interaction between gifted and highly able students and the teachers they identified as being inspiring. These intersecting

ovals also display the constant influence that they have on each other by placing high

expectations on their mutual work and positively affecting their performance as teachers and

students. As Student C_068 explained, "Students feel they can trust him to teach us to the

best of his ability, and his hard work in teaching our class is repaid by us students wanting to

do the best we possibly can."

Within the intersection, it is possible to identify the three main categories, which are

the central elements to explain the theoretical construct—*being a knowledgeable and*

passionate teacher, creating an academically safe learning environment, and *teaching above*

and beyond the recommended curriculum (see Chapters 3, 4, and 5). These three theoretical

categories are interrelated and embedded in a central position, which evidences their critical

role in the theory.

Surrounding the main categories are the three phases of the core process: *expanding*

knowledge and understanding, fostering positive attitudes, and *encouraging students to take*

action. These phases are presented at a higher level of abstraction, displaying an iterative

process that is facilitated and connected by the green arrows indicating their interplay and the

importance of challenge and support provided by the teachers identified as inspiring.

The second part of the model—outside the intersecting ovals but affecting them—

contains the four contextual determinants. These elements represent the context in which the

interactions between gifted and highly able students and teachers identified as inspiring

occurred. Contextual determinants provided valuable information to understand participants'

experiences and meanings, and the need to further understand the theoretical construct

(Corbin & Strauss, 2008). Data collected from online questionnaires, interviews, classroom

observations, and field notes provided a deep knowledge of the environment to help

understand how these teachers were inspiring for their gifted and highly able students. There

were potentially more contextual determinants than those mentioned in this chapter, which is

acknowledged by the dashed line framing the theory as a flexible boundary with the external environment; however, there were four clear contributing factors that arose from the data: students' developmental characteristics, school culture, the curriculum, and gifted educational provisions offered.

This theory emphasised the motivation of the teachers identified as inspiring to place learning as the central aim of their teaching. These teachers encouraged their gifted and highly able students to keep learning and improving, engaging them with their enthusiastic behaviour, challenging activities, and respectful learning environment, which contributed to a diverse range of possibilities for their future lives.

Phases of the Core Process

According to the meanings and experiences shared and conceptualised by participants, inspiring teachers were able to open new possibilities for their gifted and highly able students by implementing particular strategies and actions, which in addition to their characteristics and teaching approaches led their students to a journey of discovery. This journey was conceptualised through three phases, which followed an iterative pattern. In the first phase, gifted and highly able students were exposed to new, interesting, and engaging learning experiences, discovered new knowledge and meanings for a field they considered already explored, or a new field for which they anticipated its study as an acceptable, but not exciting experience. In the second phase, this new knowledge motivated the experience of new and positive feelings towards the subject or domain, which led to a positive evaluation of it. Finally, in the third phase, the new meanings—in addition to new and positive attitudes towards the field—inspired gifted and highly able students to develop new academic and personal plans in order to address their new educational interests, triggered by knowledgeable and passionate teachers, and the activities they developed.

Actions and meanings from each main category (see Chapters 3, 4, and 5) were embedded within the three phases of the core process. These categories provided understanding of how these teachers led their gifted and highly able students to discover new meanings in their subjects, potentiate positive attitudes, and encourage actions in the field of study.

First phase of the core process: Expanding knowledge and understanding

The core process begins with the ability of the teachers identified as inspiring to expand the knowledge and understanding of their gifted students towards the subject and the field of study. *Expand* is defined in the Concise Oxford English Dictionary as "make or become larger or more extensive" (Soanes & Stevenson, 2004, p. 500), which reflects teachers' acknowledgement of students' previous knowledge and their interest to amplify students' perceptions about subjects to see new possibilities and options. This expansion was possible because teachers had learning and enjoyment as the main educational aim, and facilitated meaningful learning from a knowledgeable and passionate perspective, promoting the development of deep understanding and the discovery of new meanings. Teachers' expertise, experiences, and deep knowledge helped the students to gain perspectives about the subject from interesting and engaging angles, as teacher A_I mentioned, "I bring vast amounts of life experience, relevant life experience to the topics that I teach".

In addition, students acknowledged that teachers identified as being inspiring had important characteristics that made them different from other teachers. Gifted students also highlighted teachers' competence regarding their area of knowledge and their ability to teach them as gifted learners. This was explained through the concept of a being knowledgeable teachers. Teacher participants also identified themselves as being highly competent and efficacious in their area of expertise, which gave them confidence to teach gifted learners.

Students also described these teachers as highly intelligent with high levels of understanding of their students.

Moreover, students highlighted teachers' efforts to prepare high-quality classes, teachers´ interest in making students feel comfortable in their classes, and in engaging student participation, as well as teachers´ passion for the content and for teaching, and teachers´ ability to transmit their enthusiasm and passion to their students. As these students commented: "He is a very intelligent person and understands students very well, more than any other teacher I know" (A_038); and "His attitude also makes his classes engaging, he is passionate about the subject. This is interesting because not many other teachers have managed to spread their enthusiasm to the students" (C_085).

This new understanding of the subject was related to the discovery of how the subject content could be used to explain daily life events, complex material, human behaviour, their own development, and solutions or explanations to social issues. As explained by Student A_066, "I found probability to be much more interesting and fascinating than I thought it would be, from hearing [the teacher] explaining how the intricate workings of probability could affect stuff like basketball results in the weirdest way". Gifted and highly able students argued that their perception of the subjects was broadened divergently, being able to visualise a wide range of applications and connections with real life, and with different subjects, changing in positive ways the expectations about what the subject was able to provide for them:

> My ability to think outside of the box and to consider a claim from multiple
> perspectives has significantly increased from participation in these extension
> programs during high school. I spend more time thinking about issues of global
> significance which I have been exposed to and the ethics behind my decision-making.
> (C_073)

By addressing students' educational needs, these teachers provided opportunities for their gifted and highly able students to be challenged through thought-provoking questions and discussions, which sparked students' curiosity, and supported them to develop their talents. Student B_050 mentioned, "He would twist his answer into a question to probe your mind further" and Teacher A_I stated, "That's sort of just something that sort of interrupts their sense of normality and that they're like wait a minute, this doesn't make sense … and they start asking questions." Enhancing students' curiosity was a critical step to expand students' knowledge and understanding due to teachers' motivation to promote learning being the main aim of their lessons, over marks or academic performance. Students acknowledged the efforts made by these teachers to teach content knowledge to a high standard and in an engaging way, which keep them interested in learning, as Student A_055 mentioned:

> I'm going to class that as a strategy because I've met teachers that put no effort into making their classes engaging, or motivating their students to learn. [He] was the opposite of that. If you weren't enjoying class or were struggling, he made an effort to find out why and did what he could to help.

The new understanding was also evidenced through important changes in students' perceptions of a subject. Students acknowledged that after having classes with these teachers, the subject had the potential to enable them to see and understand the content and its applications from multiple angles, which went beyond the traditional expectations they had about the subject. Students discovered new ways of thinking and doing, which contributed positively to their engagement with the subject, and increased their interest and motivation to learn more. Student B_053 commented, "I never thought that maths was a difficult subject and that I needed to put a lot of effort into it, but [this teacher] made me realise that maths was more than just solving for x."

Having inspiring teachers was important for the gifted and highly able students to embrace particular subjects with renewed and positive perspective because the engagement described in this first phase increased their perception of the subject in a joyful way. Describing the classes with the teachers identified as inspiring as places where they learned and also had fun, displaying a new understanding of the school learning process and the subject. Students acknowledged that they were learning in a highly engaging way, which contributed to their understanding that learning in classes does not have to be a tedious experience. For example, Student C_082 commented, "I do not only learn a lot in class but also have fun and laugh at the jokes that are made" Teacher A_V argued that it was possible to teach with this approach due to the students' characteristics:

> We can have a bit of fun in the class, as well as learning. They still get the concepts and they work their backsides off throughout the time, but they can do it in a pretty relaxed sort of way because they're such good kids and they … you can sort of treat them a bit more maturely than other kids where you have to worry about discipline things in class. There's none of that in that class that I've taught.

Therefore, enjoying while learning deep and complex content knowledge at school was experienced as a new understanding because of the learning experiences with these teachers. By expanding students' knowledge and understanding in different areas, teachers identified as inspiring contributed to the learning process as a motivating experience. Teacher competence, knowledge,, and their interest in their subject and for teaching it, contributed to expanding the knowledge and understanding of their gifted and highly able students.

Second phase of the core process: Fostering positive attitudes

With the new understanding developed in the previous phase, gifted and highly able students were exposed to new, challenging, and engaging learning experiences. Overall, these

were evaluated in positive terms and motivated their interest in the topics and fields of study. Additionally, teachers created learning environments (see Chapter 4) that promoted positive affects by providing a friendly atmosphere, positive and respectful peer and teacher–student relationships, a safe place to make mistakes and not know all the answers, and yet a place to have opportunities to learn from their mistakes.

According to the Oxford English Dictionary, *foster* is defined as to "encourage the development of (something, especially something desirable)" (Oxford Dictionary, 2019). The promotion of positive and safe learning environments, discovery of new meanings about the subject and the field of study, and the enjoyment experienced about the content contributed to fostering a positive disposition and evaluation of the learning experiences with these teachers. From social psychology, the disposition and evaluation towards something in particular are known as *attitudes*. From this perspective, attitudes are understood as "a positive, negative or mixed reaction to a person, object, or idea" (Kassin, Fein, & Markus, 2011, p. 203). Teachers identified as inspiring made efforts to promote their subjects and areas of knowledge as positive and worthwhile experiences for their gifted and highly able students, as explained by Teacher C_X, "I see teaching literally as a performance, so you have to perform for the kids and show them, you know, that through that performance that what you're doing is good, and worth studying."

Therefore, inspiring teachers were able to foster positive attitudes towards four different and interrelated dimensions: towards them as teachers, the area of knowledge, the learning process, and towards the students themselves and their classmates. First, teachers identified as inspiring fostered positive attitudes in their students towards them as teachers by building respectful relationships, being validated and acknowledged for their competencies and knowledge, being passionate,, and dedicated teachers, and by challenging their students with new understandings and meanings about the content that they did not previously know:

I enjoyed maths with [this teacher] both years that I had him. I hold him as the golden standard for teachers. Before having maths with him, I did enjoy the subject but didn't really pay attention to the teacher too much. I would learn more from the book. On the other hand, during my years with him, even if I knew the content from beforehand (Kumon), I would still pay attention to what he was saying. (A_032)

Additionally, when students felt their educational needs were being addressed by the teacher, it was considered an important source of respect. Teachers' efforts, according to the students, demonstrated that the teachers cared about their students, knowing them and knowing how to help them to improve. As Student A_55 explained:

I had so much respect for him as a teacher, and for how much effort he put into helping me, so this had a positive effect on our interactions. He would also make an effort to get to know you, your interests, strengths, and weaknesses, sense of humour etc., individually, so you really felt like you were getting an individually catered learning experience.

Students mentioned that they felt less stressed because they knew these teachers were teaching them to the best of their abilities, which illustrated that these students respected these teachers and had positive attitudes towards them. They were unconcerned about not receiving the education needed to succeed in the future. In this regard, students' interest to keep learning and performing well were partly motivated by their teachers' dedication and hard work to teach them at the best level:

The immense effort he obviously puts into teaching us, allowed me to really gain the motivation to want to excel in his class—since he works so hard on us, I want to be able to repay that through expressing his talent to the school via achieving a high level of success in his subject. (C_076)

Second, inspiring teachers fostered positive attitudes towards their subject and the content knowledge by changing or improving how students evaluated the subject. This ability to help their gifted and highly able students to change their attitudes towards the subject was mentioned by several student participants, who discussed how their feelings about particular subjects changed after having classes with a teacher identified as being inspiring. As these students mentioned: "I was actually going to drop biology because I thought that I wouldn't enjoy it, but one class with [this teacher] and I was just as enthusiastic about the subject as she was" (B_054); "I wasn't very interested in Humanities until I reached his class, after which it became one of my favourite subjects" (B_062); and

> [This teacher] made me realise how much I like history, I didn't mind it in Year 7 but Year 8 was the best, this year it's still good as well. She also made geography, a boring subject in my opinion, interesting. (A_014)

As mentioned by the students above, these changes moved from a negative range of feelings and perceptions, in which they considered the subject as being boring and too theoretical, involving high amounts of memorisation, or as being unimportant beyond the school boundaries, and displaying a lack of interest. However, after having classes with these teachers, the student participants' subject evaluations of the subject moved to the other end of the continuum. Students expressed that they considered the subject as one of their favourite subjects and as a meaningful area of knowledge. Students looked forward to have these classes and achieve their best marks. Additionally, these classes were a subject-related field of study in which students were highly motivated to follow as their academic path in the future. Participating students mentioned no negative changes in their attitudes.

Third, inspiring teachers fostered positive attitudes towards the learning process, which was encouraged with the support of high-quality and enthusiastic teaching, and safe and positive learning environments. Students mentioned that despite the hard work to address

their challenges, and all the work done within and outside the classroom, they did not feel overstressed: "Interactions are pretty casual; he's just an easy-going kind of person, which creates a fairly easy-going environment. The classroom doesn't feel stressful, but we're still very productive and get stuff done" (A_003). This was related to teachers' characteristics, student characteristics as gifted and highly able learners (see Chapter 1) and to the pedagogical approaches that teachers used in the classes.

Learning in an environment in which teachers made important efforts to remove negative experiences by treating their students as mature individuals and addressing students' educational needs, promoted positive learning experiences. Students felt respected, valued, and were learning and having fun at the same time. As this student commented, these teachers were "prepared to treat students respectfully and not act patronising or superior to them (not meaning act like friends—but must not make them feel ignorant or worthless)" (B_030). This positive attitude towards learning was also fostered by the idea that making mistakes or not knowing an answer were valued parts of the learning process and invitations to continue learning without negative feelings: "He didn't act as mistakes were the end of the world. He showed us that they were learning experiences and that anyone could make them" (A_032).

Finally, inspiring teachers fostered positive attitudes towards students themselves and their classmates, based especially on their abilities, talents, potential, and their possible future achievements. Due to the constant academic challenges experienced with these teachers, who were identified as inspiring, and the support received from them, students learned that they had the skills to solve complex problems, be creative, and to understand and connect past and new content, thereby gaining trust in their own capabilities. This was evident in these students' responses: "Having [him] as a teacher definitely changed the way in which I thought about my own capabilities. I realised that I was 'smarter' than I had previously

thought I could be, and I was encouraged to work harder" (A_039); "With this teacher, I developed further interest in maths, as well as confidence within my abilities" (A_051); and "He's the reason I became so invested in the performing arts department. Drama became my favourite subject and I discovered that I'm not bad at acting because he made me want to explore things" (A_055).

Students also felt confident that they were receiving high-quality teaching and a personalised approach from these teachers, as well as developing a wide range of skills (see Chapter 5), which helped them to be more flexible as learners. This was explained by Student A_011:

> Different students study or stay interested in a topic differently, and this class explored so many different ways of doing so for each learning type. It taught me study and mental skills in all areas from hearing, listening, and doing. It showed me all the ways that I could learn something and do it well, and that there is not one way to succeed. I'm more flexible to ideas and experiences now.

Students also positively considered the knowledge gained from their peers, especially when working together (e.g., classroom discussions) because through the teaching and learning strategies used by these teachers, students were given the opportunity to appreciate others' other opinions, and discuss them. Students mentioned that "General classroom discussion and involvement of all students helps to gain different perspectives and ways of explaining difficult concepts, which improves our essay writing ability and strengthens trust in our classmates" (C_073); and:

> He would also encourage us to do more public speaking, picking out ideas from the class discussion and asking us to write and perform speeches about our takes on the matter, which was great practice, lots of fun, and helped me see the viewpoints of my classmates better. (C_084)

Together with their new understanding, the subjects were perceived as more meaningful and sophisticated. Students attributed this new perception of their subjects to the teachers' ability to present the content knowledge in a highly engaging manner. The students found the emotion and enthusiasm of the teachers highly contagious. Student C_088 said, "His humour and engaging way of teaching is extremely interesting because it holds the attention of the class, and also helps in learning the material." These positive attitudes led the students to take actions at different levels, which included both immediate decisions or long-term plans. These are explained in the next phase. In some cases, fostering positive attitudes involved attitude change, which displayed the significant role of these teachers in the academic lives of these gifted and talented students.

Third phase of the core process: Encouraging students to take action

By discovering new and unforeseen meanings and understandings, and by fostering positive attitudes towards various areas, gifted and highly able students were encouraged by the teachers identified as inspiring, directly and indirectly, to undertake constructive action. According to the Concise Oxford English Dictionary (Soanes & Stevenson, 2004), *encourage* is defined as to "give support, confidence, or hope to" (p. 470). These teachers were enthusiastic and passionate about the content they were teaching and about teaching their students, and these feelings were passed onto their gifted and highly able students, which made them more engaged and willing to take academic and social actions related to the subject. As Student C_071 highlighted:

Her positive attitude, enthusiasm, and obvious passion for the subject is contagious and makes you want to take interest. You can tell when a teacher is passionate about their work and genuinely loves what they do, and it's so evident with her. Having a

teacher like that makes you yourself want to learn better and makes you feel encouraged to go the extra mile yourself.

Teachers identified as being inspiring acknowledged that an important part of their job as teachers of these gifted and highly able students was thinking about their students' future, and demonstrating their interest to make positive contributions towards it. By encouraging their students to use their potential in positive ways, it was possible to identify five areas of constructive action encouraged by the teachers identified as inspiring: investing time learning about the subject, working hard, making decisions to keep their involvement within the field of study, deciding on a career path related to the area of knowledge, and taking personal and social action.

After having classes with teachers identified as inspiring, students began to invest more time in learning, reading, and thinking about particular content or subject knowledge. Teachers explained that this was evident in the questions asked by their gifted and highly students in class, which for these teachers, revealed that they were motivated and engaged to reflect on and research the subject in their own time. As these participants mentioned:

She inspired me to spend more time reading up on some issues. Particularly when we did topics like tourism, sustainability, and gender inequality. I found myself reading articles on different topics in my own time. Maybe it's because she seems so informed on different issues it inspired me to take an interest myself (C_084).

They're very curious which is good. Sometimes there's lessons that just go way off track because the questions they ask are just … interesting questions and they're, like, really in-depth questions which show they've spent a lot of time thinking about it and I don't want to discourage them from those types of questions. (A_II)

Teachers valued students who spent time learning about their subject because they encouraged these students to keep learning beyond class and encouraged autonomous learning. Teachers modelled these actions to their students by being well prepared for their classes or by doing extra research themselves when questions emerged and they did not know the answers:

> The teacher of this class knew a lot about particular designers, and although I knew some information, I felt as though I could learn a lot more, so I was inspired to do some of my own research, and I bought some books so I would be able to learn more information. (C_069)

Students were also encouraged by their inspiring teachers to work hard due to their own interest in a subject. Students took the subject of interest more seriously and were highly motivated to learn beyond the minimum study required. This renewed interest in the subject motivated the students to do more and heightened their interest to succeed. Students attended accelerated or advanced classes and put in more effort and worked harder, which meant their commitment to learning increased, as exemplified by this participant:

> Before having [him] as a teacher, I was an average student who had an average of around 80 per cent. After having him as a teacher, I was much more motivated to learn, especially because the way in which he explained things to us made a lot of sense to me. Thanks to his notes and explanations, I went from averaging in the low 80s to the high 90s. I became more diligent in my work, and getting good scores motivated me to get more good scores, and so on. (A_039)

In many cases, students' motivation to work hard was influenced by their interest to respond appropriately to their teachers' efforts and dedication towards the subject. This was shown by these student participants: "His level of concern and dedication to teaching us,

made me want to do better, to repay him for some of his efforts, and allow him to see that they were worthwhile" (C_076); and

> This teacher has inspired me to work hard and put 100 per cent of my effort into everything that I do. Whenever I feel like quitting, I just imagine their disappointment at me if I were to do so and that gives the motivation to finish the task at hand. (A_041)

Students acknowledged and valued teachers' hard work in creating engaging lessons, promoting provocative learning experiences, and the time invested to help their students to succeed. They were active role models and motivators for them. As these students stated: "The willingness to put in effort and time to make YouTube video tutorials to actually teach each maths question" (A_066); and "It's obvious that he has done a lot of research and is aware of multiple historical views, and that he has also spent a lot of effort in preparing the material for us" (C_072).

As mentioned previously, teachers identified as inspiring had a strong focus on their students' future. This was added to the new understanding and meanings, and the positive attitudes which encouraged their gifted and highly able students to keep their involvement in the field of study—choosing subjects related to their field (e.g., VCE subjects), joining extra learning contests such as Olympiads or being involved in environments related to their area of knowledge. As these students explained:

> He inspired me to actually try in maths, to ask for help when I needed it and to continue maths into VCE. If you asked me in Year 7 if I planned on doing maths methods in VCE I would have laughed out loud and cried a little inside. If it wasn't his constant encouragement (and the fact that it felt really bad to let him down), I probably wouldn't be about to be taking my final exam for methods 1/2. (A_055)

I was inspired to do Olympiad-type problems and went on to compete in competitions such as the Australian Intermediate Mathematical Olympiad and the University of Melbourne Mathematics Competition. In these competitions, you are given a lot of time and very few problems, and requires you to be creative and see how you can attempt to answer and prove the required question. (C_083)

Additionally, gifted and highly able students carefully considered teachers' suggestions because they trusted their teachers' appreciation of their skills, and they were seen as important and valuable role models. Student A_003 illustrated this:

I've decided to do unit 3/4 biology next year, which [this teacher] recommended. He thinks I'd be capable of it, and even though I'm not entirely sure of that myself, I still want to do the subject purely to learn more about it, regardless of grades.

Teachers also inspired future decisions, motivated by positive experiences, usually related to the selection of career paths. Most of the student participants acknowledged that due to their interaction with inspiring teachers, their future career paths became clearer and new possibilities related to the fields of study taught by these teachers emerged for them:

The way he applies such archaic concepts to present day is really inspiring and has prompted me to involve more with the current political scene, both in Australia and globally. I am also considering studying philosophy (as a minor) in university as I really enjoy it, which is solely due to his teaching. (B_030)

Students discovered a new specific interest they wanted to pursue through further education in the future, or confirmed a genuine and passionate interest in a specific field by keeping this interest as a hobby. As these students discussed: "She has inspired me to continue on with my art, even without the necessary skills. Although I still don't consider it as a proper career option, I believe that due to her, I will continue art as a hobby" (A_042); "My already existent aspiration of becoming a teacher was further boosted as I was inspired

to not only become competent in the subject I would teach but also in forming valuable relationships with students" (B_033); and "I also thought more seriously about a more language-based career, last year was the year I more seriously considered journalism or interpretation as a career" (C_084). Moreover, some students planned to change or adjust their career decisions to include components related to the fields taught by inspiring teachers: "Due to class being an interesting environment, I discovered an interest in the subject—thus, I've changed my future plans to potentially look at science-related courses" (A_057).

Finally, inspiring teachers were able to motivate positive changes in personal and real-world terms for their gifted and highly able students, which encouraged them to be better citizens. Students were able to internalise the content learned in these experiential classes, in which issues were discussed, so they were interested to apply this knowledge to their lives. This was acknowledged by students and teachers: "I also want to help reduce inequality in the world and use my financial information and education to empower women and impoverished peoples" (C_068); and

> This is a subject to empower you as women and that's really important to me. So, I want you to not be the people in the future who end up with massive credit card debts and all that sort of stuff. (C_VIII)

The majority of these teachers mentioned that they wanted to contribute to their students' development as good citizens, critical thinkers, transformers, and innovators of good practice. They taught their students in the subject and developed their students' characters. For these inspiring teachers, their gifted and highly able students were the future, and they were able to articulate their high expectations:

> I think I'm so glad that they're going to run the world soon I want the world to hurry up so they're the kids in charge because yeah I see so many good qualities in them that I hope they take to change the world. (A_III)

I can't wait because I know that they're going to be, you know I'll be watching the news and there'll be this amazing new discovery by Dr Blah and I'll look up and go, 'Oh, I taught that person, you know?' I can't wait, I can't wait for that because I know it's going to happen because these are amazing young people, so I'm mostly excited to come to school every day. (B_VI)

Most of the student participants explained that these teachers were an important source of inspiration, who acted as role models for their future. Teachers identified as inspiring helped their gifted and highly able students to develop a positive approach to their subject, facilitating their predisposition to learn, as well as their action and decisions, and these students responded positively after being inspired by these teachers. This inspiration came from the teachers themselves by knowing some of their teachers' beliefs, attitudes, and personal experiences, and from their teaching approaches:

He actually led me to get my first job, teaching at a Kumon centre. Seeing him teach with such dedication and how it impacted his students, it made me want to help and influence others the same way. Quite heavily swayed by that, I chose to work at Kumon so I could teach younger children maths with the same kind of dedication (Willing to take time for individuals, always, and treating everyone like unique individuals). (A_032)

Additionally, this inspiration came from the activities organised by these teachers, due to providing the students with the levels of complexity and challenge needed to satisfy their intellectual needs, encouraged the students to create connections between past, present,, and future knowledge in order to form the big picture. Tasks and activities developed by these teachers promoted the importance of learning as a permanent activity. The teachers' pedagogical approaches were perceived as a constant invitation to make new discoveries, and

the students' engagement acted as motivators for teacher and student participants to go beyond the expected curriculum, as Student C_073 stated, "[This teacher encourages] us to go beyond the prescribed syllabus and not just learn about the diagrams or theories, but how these theories were developed, whether or not they are relevant to our modern society" Challenging activities motivated the students to keep their engagement in the field. Students usually considered the learning activities developed by these teachers to be valuable to achieve their goals, and to potentiate their learning and abilities.

Contextual Determinants

Multiple contextual elements affected the process of how teachers inspired gifted and highly able students. These elements were included in the conceptualisation of the three categories and phases of the core process, implicitly and explicitly, due to their mediation and influence on the understanding of the studied phenomenon. These conditions helped to explain how participants experienced the studied phenomenon from diverse perspectives according to their roles and experiences, and how these conditions determined their decisions and action.

Charmaz (2014) emphasised that situating grounded theory studies minimises preconceived ideas and strengthens them by providing information about their contexts. Even though data for this study were collected in three different educational environments, it was possible to identify common features. These elements were identified from the data, field notes, and the multiple visits to the three secondary schools and classrooms. For the theory presented in this chapter, contextual determinants were categorised into four interrelated and broad groups: developmental characteristics of the students, school culture, curriculum, and gifted educational provisions offered at the schools.

Students' developmental characteristics

Student participants were adolescents studying in Years 9–11. In this developmental stage, important changes occur in multiple domains, such as the social, affective, cognitive, and physiological areas (Anderman, 2012).

According to Erikson's stages of social development theory (1968), identity development process is the main task during the years of adolescence, as a means to find the person's place and role in the society. This process played an important role in how teacher participants developed relationships with their students, how they worked towards their futures, and the kinds of tasks organised to challenge them. In general, teachers identified as inspiring were acknowledged as valuable and positive role models, who had an important influence in terms of knowledge, enthusiasm, respect, and effort. These teachers made conscious efforts to evidence in their classroom practice to be open about their teaching of gifted adolescents.

For this research, there was a segment of the adolescent participants, who were also processing information about themselves as being gifted and highly able learners (others were identified earlier). Teachers played an important role in helping and supporting this gifted realisation process, as well as challenging them academically to show them that they were experiencing this together in safe learning environments. This context, in which students felt respected, valued, and cared for, helped to establish positive and respectful relationships with the teachers. These were characterised by equitable interactions, in which students could reveal their gifted potential, and where teachers treated them as mature thinking individuals. This was highly valued by the student participants.

Teachers provided a wide range of learning options for their students to explore, such as the use and development of different high-level skills, a wide range of points of view to understand a phenomenon, a variety of uses of content knowledge, and multiple connections

with other subjects, etc. Exploring different options and possibilities contributed to the students' identity development processes, which helped them to foresee themselves positively in their futures in terms of dealing with important decisions about interests, hobbies, and career paths. Students had opportunities to gain a complex awareness of social issues and to connect past and present discussions concerning social, political, economic, health, and educational issues, which contributed to their cognitive, moral and social development.

School culture

It is difficult to find a definition of school culture (Zhu, Devos, & Tondeur, 2014). Deal and Peterson (1999) defined school culture as the "unwritten rules and traditions, norms, and expectations that permeate everything." Its importance lies in that according to the research related to effective schools, school culture plays a critical role in academic success (Fullan, 2007). As such, the culture of the three participating secondary schools were integral to the understanding of different priorities, values, beliefs, practices, interactions, and symbols, displaying commonalities and differences between them.

Participating secondary schools considered gifted education to be an important component in their schools, which was integral to their school contexts that were selective or high-achieving educational environments. These schools promoted cultures of excellence for their gifted, highly able and, mainstream students, and provided safe a learning environment for their students to feel supported in the development of their talents. Teacher participants agreed with the importance of providing for gifted students' educational needs and demonstrated their idea that these students deserve appropriate education relative and relevant to their individual characteristics. Some teachers received professional development relating to gifted education, which helped them as teachers, to develop a positive and informed perspective and understanding of these students, and improved their teaching

approaches with them. However, in one of the schools, teachers did not receive many opportunities for professional development in gifted education, although gifted education was valued, and teachers were passionate about teaching gifted students.

The school cultures in these schools were protective of gifted students and offered support, guidance, and positive learning environments, in which they could be true to themselves, develop their potential, and focus on their learning beyond their marks and results. These schools promoted students' sense of belonging by addressing their educational and socioemotional needs, by having opportunities to work with like-minded peers, and by valuing their high potential abilities and deep interest in learning. This also fostered the development of positive and respectful relationships between students and teachers. Additionally, students acknowledged that the relationships established with particular subjects was determined by the school culture, in which particular subjects were considered to be of high significance. This had a direct influence in terms of the effort and work style that students and teachers put into the subjects, and the emotions that these subjects generated. These safe and protective cultures were also acknowledged as having high levels of workload for teachers and students, and high expectations from students' families for their adolescent son/daughter to do better.

It was possible to observe different levels of formality among the three school contexts, from a more relaxed environment to a more formal context. This was reflected in things such as teachers' dress codes, classroom dynamics, and school infrastructure, amongst others.

Curriculum

The Victorian curriculum integrates the Australian curriculum and evidences local priorities and requirements. This curriculum "is the common set of knowledge and skills

required by students for lifelong learning, social development and active informed citizenship" (Victorian Curriculum and Assessment Authority [VCAA], n.d., para. 1).

Curriculum was closely related to the gifted educational provisions offered by the three participating schools. Curriculum varied according to the different options—going deeper and faster, being more complex, being enriched, or being extended. Student participants were part of accelerated, extended, and differentiated programs and classes, in which they were taking subjects from one or two levels above, or subjects with high levels of academic demand. For other subjects, they were learning the same content knowledge as their mainstream peers, but the skills required were higher-order thinking skills at an advanced level.

Students acknowledged and enjoyed these higher levels of complexity. However, in some situations, they mentioned that some subjects (e.g., VCE subjects) could change a student's interest in a negative way due to the high levels of demand. That was why teachers who were considered inspiring helped them to succeed in these subjects and transform potentially negative and difficult learning experiences to positive and engaging ones.

Curriculum determined the framework for teachers to work and to teach their students, as well as how they planned their classes by allocating a certain amount of time for digressions to address students' interests. Teachers identified as inspiring usually went beyond the expected curriculum to address students' educational interests, and needs. Students were aware of the requirements for the exams, and they trusted their teachers to address all the required content knowledge and more. This helped the students to feel secure in their preparation for the exams.

Gifted Educational Provisions

Australia offers different academic opportunities for gifted and highly able students (Walsh & Jolly, 2018). In the state of Victoria, it is possible to identify options based on acceleration and ability grouping (Kronborg & Cornejo-Araya, 2018). These provisions influenced how teachers taught, challenged, and encouraged their gifted and highly able students.

Being among like-minded peers in classes of highly able students was identified by teachers as one of the most important benefits for their students. As teachers explained, these students felt safe in their classes to be able to speak their minds and to be themselves, which facilitated the teaching and learning process. Teachers considered that teaching in a context in which students were highly motivated to learn was also beneficial for their teaching, and enhanced their teaching compared to different educational environments.

Students learned that there were other students with similar high abilities, similar, and different learning competencies, which facilitated their learning about cooperation and effort, as well as management of their identities as gifted and highly able learners. Teachers also acknowledged the diversity among the students identified as gifted and highly able learners, and the importance of providing for all their educational needs. Additionally, teachers managed some possible negative impacts of being in this kind of program, such as high levels of competitiveness among peers, pressure from some families, and the pressure associated from being in a gifted educational program that were sometimes evident. However, these were also experienced differently by individual students.

Students did not refer to specific educational provisions in their responses; however, the meaning attributed to the learning environment was often created in response to their experiences learning alongside like-minded peers in challenging classes. Students acknowledged and valued being in respectful learning environments, which addressed their

educational needs for a faster paced and more complex learning curriculum that provided for their varied interests. Students recognised the classroom environment as respectful and tolerant, enjoying the friendly competitions, and working collaboratively with their classmates.

Putting it all Together

Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students provides a new understanding of the processes through which teachers inspire their gifted and highly able students. This theory, which emerged from participants' experiences and understandings, includes three clear phases: *expanding students' knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action.* These phases, which are at a higher level of abstraction, affect each other emphasising the iterative logic of the model. A central aspect of the theory reflects the three main theoretical categories, in which teachers' knowledge and passion, the development of an academically safe learning environment, and the teachers' ability to teach above and beyond the recommended curriculum, contributed to the process through which teachers inspired their gifted and highly able students.

The new cognitive elements, in conjunction with the learning environment and the relationships established with their students, facilitated the development or strengthening of positive attitudes towards the different areas related to the subject and the learning process. Finally, and after being acknowledged as knowledgeable and passionate teachers, these educators identified as inspiring were able to motivate and encourage students to take action to address their educational interests in relation to the field, which at the same time, increased students' motivation to learn more and to have a deeper understanding.

Gifted and highly able students and inspiring teachers' characteristics were considered for understanding the positive interaction between them, the strategies used to teach and learn, the work approach, and the educational aims. Additionally, four contextual determinants were identified as important elements to collect, analyse, and understand data, including students' developmental characteristics, school culture, curriculum, and the gifted educational provisions offered at each secondary school. The core process presented in this chapter is grounded in data, and meets the criteria for constructivist grounded theory studies proposed by Charmaz (2014). The theory—*Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students*—integrates theoretical relationships between the codes developed early in the research process, categories, and the phases, which explain the studied phenomenon.

Summary

This chapter has outlined the theoretical core process that emerged from the experiences, actions and understandings of teacher and student participants—*Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students.* This theory was explained through three interrelated phases: *expanding students' knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action.* These phases presented the theory as an iterative process, through which teachers inspired their gifted and highly able students. The three theoretical categories were located in a central position, displaying their role to understand the phases of the core process. Contextual determinants were also considered to better understand the studied phenomenon. The next chapter will present the literature comparison and discussion.

Chapter 7: Literature Comparison and Discussion

Chapter Overview

This chapter presents the literature comparison and discussion to situate the findings within the existing literature. It begins with an explanation of the developmental process of a theoretical framework in a grounded theory study, and the critical role of memos in conducting these procedures. The framework is organised according to the three phases of the core process: *expanding students' knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action.* The first phase of the theory is theoretically related to the constructs of self-efficacy and interest. The second phase is theoretically understood through the concepts of enthusiasm, passion, and humour, whereas the third phase emphasises the constructs of challenge and task value. The literature comparison and discussion contributed to expand the theoretical understanding of the core process.

Back to the Library

As Charmaz (2006, 2014) argued, some authors consider that researchers should wait until analysis is completed to conduct the literature review and theoretical framework. According to Glaser (1998), this prevents the researcher being influenced by the existing literature. However, this pronouncement could be problematic for researchers (Charmaz, 2014; Thornberg, 2012). For this reason, Charmaz (2006, 2014) presented more flexible guidelines and invited researchers to present their sensitising concepts before data collection and analysis, as a strategy and compromise to remain open with the emergent information. For this research, sensitising concepts were presented before data were collected and analysed, and declared in Chapter 1.

The literature comparison and discussion presented in this chapter aim to locate the findings within the existing literature. The extant theories, models, and research discussed here, contributed to a deeper and a critical understanding of the theoretical construct presented in Chapter 6. This comparison helped me to understand how the core process expands the understanding of the studied phenomenon and provided a starting point for new reflections, as well as guidelines to be considered in the field of gifted education (see Chapter 8).

As described in Chapter 1, different theoretical constructs were presented as sensitising concepts before data were collected and analysed. These ideas included the role of the environment (e.g., Csikszentmihalyi, 1996; Gagné, 2013; Piirto, 2000; Subotnik et al., 2011; VanTassel-Baska, 2005), the concept of flow (e.g., Csikszentmihalyi, 1990), crystallising experiences (Walters & Gardner, 1986), and inspiration (Thrash & Elliot, 2003, 2004). The original components were relevant and connected with the findings; however, this framework was expanded following data analysis, due to the original ideas not being sufficiently complex to explain the central phenomenon. It was decided to keep the idea of inspiration because findings were consistent with the scientific literature on this topic.

To conduct this discussion and literature comparison according to the constructivist grounded theory guidelines, memos—traditional tools used in this kind of research (Charmaz, 2006; Clark, 2005; Lempert, 2010)—were utilised to guide the search for appropriate material, research, and theories. This material enlightened the findings, facilitating their comparison, understanding, and discussion.

The following section is organised according to the three phases of the core process, including the embedded categories, and the contextual determinants presented in Chapter 6. This chapter establishes connections with significant theories, models and research in the

field of giftedness, psychology, and education, and contributes to an understanding and differentiation of the theory presented in Chapter 6.

The Theory Within and Beyond the Existing Theories

Opening new possibilities: Teachers who inspire gifted and highly able students is a theoretical explanation to understand a particular type of interaction between teachers identified as inspiring and their gifted and highly able students. This interaction demonstrated the positive effect that significant teachers can have on the academic lives of their gifted students. The emergence of this theory has highlighted aspects that were unforeseen at earlier stages of this study, which for that reason were not included as part of the sensitising concepts presented in Chapter 1. This chapter brings past and present ideas together and makes their interplay more explicit in supporting and situating the findings.

Findings demonstrated the complexity of the interaction between gifted and highly able students and their teachers who were identified as being inspiring. This interaction was explained as a positive cycle process, characterised by mutual expectations, their influence and characteristics, as well as the challenge and support provided by these teachers. Miedijensky (2018) argued, "as gifted children possess unique traits, so must their teachers" (p. 223). Three different phases explained the core process and displayed the unique characteristics and strategies used by these teachers: *expanding students' knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action* (see Chapter 6). According to the literature, teachers have a significant influence within the classroom and beyond (e.g., Craig, Evans, Verma, Stokes, & Li, 2019; Furrer, Skinner, & Pitzer, 2014; Phelps & Benson, 2012; Sadler, Sonnert, Coyle, Cook-Smith, & Miller, 2013), and in the field of gifted education, teachers are generally considered one of the main influences on students (e.g., Croft, 2003; Kronborg, 2008, 2010; Shavinina, 2009b).

Several studies have concluded that the teacher's role is critical to the educational development of their gifted students (Cross, 2014; Kanevsky & Keighley, 2003; Kronborg 2018b; Lassig, 2015). In the same way, Hohmann and Seidel (2003) argued that talent development has two main stages: talent identification and talent promotion. Teachers play an important role when they identify gifted students in their classrooms for further assessment, and for their various extension programs, through which they provide and encourage these students (Kaman & Kronborg, 2012; Kronborg & Plunkett, 2015; Tirri, 2017).

Having positive academic experiences with their teachers led the gifted student participants to consider them to be inspiring teachers. As explained in Chapter 1, different studies have demonstrated that gifted adults usually had a remarkable experience with a teacher when they were students (e.g., Kronborg, 2008, 2010; Shavinina, 2009b). Walters and Gardner (1986) theoretically explained these experiences as crystallising experiences, defining them as "a remarkable and memorable contact between a person with unusual talent or potential and the materials in the field in which the talent will be manifested" (p. 308). Nevertheless, it was too early to identify this phenomenon as a crystallising experience in clear terms in the present study. Further, this concept raises the question whether teachers of the gifted need to be gifted themselves because, according to Rosemarin (2014), "not all teachers should be assigned to teach the gifted" (p. 263). This discussion is beyond the scope of this research; however, gifted student participants acknowledged that an important characteristic of the teachers identified as inspiring was their knowledge and expertise in the field of study they were teaching, as well as their extensive knowledge in other areas, which facilitated their interests and new connections.

In his theory, Gagné (1985, 2013, 2018) emphasised the role of different agents with a positive impact on the talent development process called catalysts. These catalysts can be

intrapersonal or environmental factors, which enhance or inhibit the developmental process of giftedness (Gagné, 2013). Teachers can be considered as important catalysts for gifted and highly able students, as well as the learning environment and their peers (Kronborg & Plunkett, 2012). Gagné's (2013) DMGT was used to define giftedness in this study, as data were collected in Australia, where this model underpins the field of gifted education (Kronborg & Plunkett, 2012), as it is the most popular theory used in the country (Kronborg & Cornejo-Araya, 2018). As with Gagné's model, other authors have included an association with expert teachers or mentors, expert instruction and psychosocial factors (e.g., Bloom, 1982, 1985; Feldman, 1986; Piirto, 1998, 2000; Subotnik & Jarvin, 2005; Tannenbaum, 1983, 2003). Subotnik et al. (2011) proposed a definition of giftedness, which was intended to be comprehensive and applicable to different domains:

> Giftedness is the manifestation of performance or production that is clearly at the upper end of the distribution in a talent domain even relative to that of other high-functioning individuals in that domain. Further, giftedness can be viewed as developmental, in that in the beginning stages, potential is the key variable; in later stages, achievement is the measure of giftedness; and in fully developed talents, eminence is the basis on which this label is granted. Psychosocial variables play an essential role in the manifestation of giftedness at every developmental stage. Both cognitive and psychosocial variables are malleable and need to be deliberately cultivated. (p. 7)

This definition highlights that cognitive and psychosocial elements need to be intentionally developed, from which it is possible to conclude an active role for those who work with gifted learners to develop their potential. As mentioned before, teachers play a critical role in the talent development process, and this definition demonstrates that it is not limited to the academic level (Phase 2). Additionally, Subotnik et al. (2011) emphasised that

ability is important but not the only feature, as there are other critical elements, including interest and commitment towards the domain, appropriate teaching to develop psychosocial skills, and encouragement of the students' willingness to put effort and time into their work. These considerations reflect the work that teachers identified as inspiring were doing in order to effectively provide for their gifted learners. These trigger questions about the characteristics of appropriate teaching to develop the desired skills on their gifted and highly able learners, motivate students to put in effort, and to consider that more than ability is required. This research aimed to address these concerns. Teachers identified as being inspiring displayed a variety of strategies to address these points, which were explained as a process through three main phases (see Chapter 6).

In the models and theories of giftedness, opportunity and chance also play an important role. Different theories include them as variables to be considered in the process of talent development (e.g., Gagné, 2005; Piirto, 2000; Tannenbaum, 2003). In the most recent version of Gagné's (2018) DMGT theory, chance has not been included in the graphic representation of the model. Piirto's (2000) Pyramid of Talent Development (see Chapter 1) also argued that schools have the responsibility to provide for talented students to nurture their potential. The theory *Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students,* contributed with guidelines about how teachers can do better in developing students' high abilities (see Chapter 8). In this regard, Subotnik et al. (2011) argued that "at least one person in the individual's life must also provide encouragement to appreciate the joys and persist through the challenges of the talent development process" (p. 27). This point highlights the importance of students having opportunities to learn with high-quality teachers, who are interested in addressing their academic learning needs as gifted learners, and open new possibilities for them. Nonetheless, it is unclear why some gifted students develop a particular interest in an academic field as it is with sport and the arts (e.g.,

Fredricks, et al., 2010; Subotnik et al., 2011). Previous studies (e.g., Kronborg, 2009, 2010) found that passion played a critical role in matching the person's high ability with a particular domain. Therefore, creating opportunities to facilitate this connection might help gifted students to find their areas of development. In line with this, findings from the present study showed that interest in specific academic areas emerged due to having an inspiring teacher who developed particular interactions with their gifted students, and opened new possibilities for their futures.

Establishing a suitable learning environment is also essential to appropriately provide for gifted students (VanTassel-Baska & Hubbard, 2016). This was clearly stated in Chapter 4, when presenting findings for the main Category 3. Miedijensky (2018) conducted research to evaluate gifted students' perceptions of outstanding teachers regarding their learning environment. Teacher participants in Miendijensky's (2018) research, agreed that the most important aspect of the learning environment was the learning atmosphere, which according to them needed to be comfortable, safe, promote openness and flexibility, and be accepting of giftedness. These findings are consistent with those presented in Chapter 4, which explained how teachers identified as inspiring developed academically safe learning environments for their students (Category 2). Pleasant experiences within the classroom contributed to the students' perceptions of the learning environment as safe and comfortable (Miedijensky, 2018).

Several studies have been conducted to explore the impact that high-ability school environments have on the students' academic self-concepts (e.g., Ireson & Hallam, 2009; Marsh, 1987; Marsh & Parker, 1984; Preckel & Brüll, 2010; Preckel, Zeidner, Goetz, & Schleyer, 2008). This phenomenon is known as the big-fish-little-pond effect, and argues that students with a similar ability have lower academic self-concepts in educational environments in which the average ability of the group is high, and higher academic self-

concepts where the average ability is low (Marsh, 1987; Marsh & Parker, 1984). However, Preckel and Brüll (2010) studied this phenomenon finding a strong assimilation effect—positive influences of belonging to a group of high ability—which overshadowed the potential negative effects. In addition, being part of a gifted program, and having different curriculum and learning experiences have positive influences on students' academic self-concept (Marsh et al., 2008). Based on the findings presented in this study, teachers identified as inspiring created a learning environment, in which students felt safe and respected, and where learning and enjoyment were critical educational aims. The environment created, in addition to the inspiring teachers' characteristics and self-concept, affected in positive terms their gifted and highly able students' self-concept. The positive environments developed by the teachers identified as being inspiring were enhanced by their enthusiasm, which promoted students' motivation through mastery-oriented tasks (Lazarides, Buchholtz, & Rubach, 2018) (see Phase 3). Additionally, an enthusiastic teaching approach requires a supportive learning environment to maintain students' intrinsic motivation (Patrick, Hisley, & Kempler, 2000).

Butler (2007) used achievement goal theory to conceptualise motivation for teaching, identifying four different goals: mastery, ability-approach, ability-avoidance, and work-avoidance goals. Teachers identified as inspiring aimed to promote a mastery goal classroom structure. This structure encourages student learning and understanding, and promotes the importance of effort as a critical component for student achievement (Schiefele, 2017; Schiefele & Schaffner, 2015), going beyond students' high abilities. Hong, Greene, and Hartzell (2011) established that teachers in gifted programs reported a clear tendency to focus on goal orientation, more than teachers in mainstream learning environments. Mastery goal structures make a positive contribution to students' sense of competence, academic achievement, and effort (Givens Rolland, 2012).

In addition to this mastery goal orientation, Butler (2012) proposed a new kind of achievement goal for teachers, called relational goals. When teachers aspire to develop caring interactions with their students—as did these teachers identified as inspiring—teachers' behaviour was perceived as being socially supportive (Butler, 2012). This was a valued attribute mentioned by the gifted student participants. They highlighted that inspiring teachers cared about them, including their academic or personal lives, or both, which created optimal learning environments for them as gifted learners. In a recent study, Butler and Shibaz (2014) established a significant correlation between teachers' relational goals and teachers' reports of social support for students, as well as for teacher mastery goals with cognitively stimulating strategies (see Phase 3). According to these findings, teachers identified as inspiring might be characterised as mastery and relational goal oriented, which enabled them to develop a learning environment with similar characteristics. Gifted and highly able students felt safe in environments that promoted learning, in which their teachers were knowledgeable and enthusiastic about their areas of expertise (Category 1), and where their characteristics and abilities were challenged, cultivated, and valued (Categories 2 and 3).

To situate the findings within the existing literature, the following sub-sections are organised according to the three phases of the core process, which explain the processes by which the inspiring teachers opened new possibilities for their gifted and highly able students. Each phase is explained using constructs from areas related to gifted education, such as educational psychology. Moreover, each phase is connected to the other phases, main categories, and particular aspects of the construct of inspiration.

Expanding students' knowledge and understanding—First phase

The first phase of the core process situated the teachers identified as inspiring as agents seeking to expand their gifted students' knowledge and understanding about the

subject and field of study. In order to do so, in this first phase, the understanding of these teachers as role models, the concepts of self-efficacy, and interest emerged as central theoretical constructs.

Teachers have a critical impact in the classroom (Phelps & Benson, 2012) and there is evidence that, in comparison with other students, gifted learners are more strongly influenced by their teachers (Croft, 2003). Gifted student participants nominated 66 different teachers, and 13 of them received the highest number of nominations. These teachers varied in age, area of expertise, years of experience, professional development experiences, and gender, among other variables; and they were all considered positive role models (see Chapter 2).

In seeking a clear and academic definition of the concept of a role model, an interesting study by Morgenroth, Ryan, and Peters (2015) was found. These researchers developed a theoretical framework to explain how role models influence the goals of those who consider them as role models. In developing this framework, they used the concept of inspiration and elements from the expectancy–value theories that were used to support the findings of the present research. They defined role models as "individuals who influence role aspirants' achievement, motivations, and goals by acting as behavioural models, representations of the possible, and/or inspirations" (Morgenroth et al., 2015, p. 468). Role models serve three functions in their definition: as behavioural models, representations of the possible, and inspirations. The emergent theory presented in Chapter 6 focused on the third function of the role models; however, the first two functions appear to be included in the construct of inspiration presented by Thrash and Elliot (2003, 2004).

Another definition of the concept of role models alludes directly to the idea of inspiration. Paice, Heard, and Moss (2002) explained that "excellent role models will always inspire, teach by example, and excite admiration and emulation" (p. 707). Role models for gifted students were those teachers who guided them to develop and discover new goals and

new possibilities. Therefore, being inspiring was an essential component of the definition, questioning the *and/or* note made by Morgenroth et al. (2015). Due to gifted students possessing particular features, it is expected that their teachers will go beyond the traditional (Miedijensky, 2018), and being inspiring role models seemed to fit with this requirement.

A second important construct in this first phase was self-efficacy. Bandura (1997) defined self-efficacy as "beliefs in one's capability to organise and execute the courses of action required to produce given attainments" (p. 3). These constructs helped to explain important characteristics of the teachers identified as being inspiring, which were mentioned by student participants and teachers themselves. Inspiring teachers were described as knowledgeable, experts in their fields, and as capable to teach their subjects to gifted and highly able students, which involved the three main categories (see Chapters 3, 4 and 5). Therefore, teachers identified as inspiring felt competent in their areas of knowledge, which helped them to feel confident in teaching and engaging gifted and highly able students. Previous discussions in the field have stated that not all teachers can teach gifted students (Rosemarin, 2014). For instance, Gallagher (2007) found that when some teachers had gifted learners in their classes, they were concerned about their limited abilities and competence to teach these students, as they were aware of their weaknesses for teaching high potential learners.

Self-efficacy is future-oriented (Tschannen-Moran & Hoy, 2001), which supports teachers' concern for being on top of the knowledge in their areas, and for most of them, preparing their classes with high-quality materials. Different researchers have concluded that teacher efficacy impacts teachers' efforts invested in their teaching (e.g., Tschannen-Moran & Hoy, 2001), as well as in their willingness to try different methods to address students' needs in an efficient way (Stein & Wang, 1988; Tschannen-Moran & Hoy, 2001). Inspiring teachers were keen to put in extra effort to better provide for their gifted students, because

they believed that these students deserved their best. Frequently, teachers' efforts are conceptualised as the extra hours used to plan lessons, mark assignments, or after-school tutoring offered to the students (Atuhurra, 2016; Dang & King, 2016). These teachers identified as inspiring, frequently worked extra hours to support and guide their gifted and highly able students, and made extra effort to get to know their students in academic or personal terms, or both, with the aim of addressing their educational needs as gifted and highly able students. This was further explained in Category 2 (see Chapter 4) and Category 3 (see Chapter 5). Additionally, higher levels of self-efficacy in teachers enabled them to be more tolerant when students made errors, and mastery-oriented practices contributed to address them as learning opportunities (Ashton & Webb, 1986; Meece, Anderman, & Anderman, 2006). This was highly acknowledged by the gifted student participants to be an important feature of the learning environments created by these inspiring teachers. Recognition of mistakes and errors as natural parts of the learning process helped to increase gifted and highly able students' positive feelings towards their classes and contributed to the development of their positive attitudes (Phase 2).

According to the findings of this study, high levels of perceived self-efficacy enabled teachers identified as inspiring to enhance students' questioning behaviour, which challenged them as teachers. However, they were not concerned where these questions would lead the class, as they were confident in their own skills and knowledge as teachers of the gifted. These findings evidenced the connection between Phases 1 and 3 (through Phase 2) and the strategies used by these teachers to encourage their students to take action in relation to their areas of knowledge.

Tschannen-Moran and Hoy (2001) conducted different studies to validate an instrument used to measure teachers' self-efficacy. They identified three components: self-efficacy for student engagement, instructional strategies, and classroom management. Self-

efficacy for student engagement corresponds to teachers' confidence to actively involve their students in the learning process (Klassen et al., 2009). Teachers identified as inspiring were considered highly engaging by their gifted learners as they helped the students to commit to the field in their own time and for future plans (Phase 3). This was also related to the teachers' enthusiasm and interest in their fields of knowledge as explained in the following phase. Additionally, Wang, Hall, and Rahimi (2015) proved that self-efficacy for student engagement is a strong predictor of teachers' psychological wellbeing. Self-efficacy for instructional strategies refers to teachers' confidence in the use of effective teaching strategies (Klassen et al., 2009). This point is further explained in Phase 3. Finally, teacher self-efficacy for classroom management refers to teachers' judgement of their own abilities to succeed in their classroom management responsibilities (Pfitzner-Eden, Thiel, & Horsley, 2015). In this regard, inspiring teachers maintained high levels of control within their classrooms as they did not experience behavioural issues (Category 2, see Chapter 4). Teachers attributed students' positive behaviours to their interest and motivation in learning, and to their engagement with the learning activities. Inspiring teachers were also found to treat their gifted and highly able students as adults, which led the students to feel valued and respected, and to display positive behaviours in classes. Therefore, treating their gifted students as adults was the main strategy used by the inspiring teachers to evidence their self-efficacy in classroom management. Lazarides et al. (2018) concluded that teachers, who evidenced high classroom management self-efficacy beliefs tended to be viewed as promoters of mastery-oriented learning environments for their students.

The first phase of the core process also emphasised teachers' abilities to create meaningful learning experiences for their gifted and highly able students, which enabled them to establish and develop new learning connections and understandings. As explained in Category 1 (see Chapter 3), students characterised their inspiring teachers as

knowledgeable—as more than being smart—, including descriptions of their teachers as effective, highly competent, and in possession of deep and broad knowledge of their areas of expertise. Competence refers to "the skills, knowledge, attitudes, and motivational variables that form the basis for mastery of specific situations" (Kunter et al., 2013, p. 807). Hence, teachers identified as inspiring, due to their characteristics, were able to expand their students' perspectives about subject content and its contribution towards their future career plans. These teachers also enhanced students' self-efficacy by modelling how they could also be knowledgeable. As Piirto (2000) stated, "experts help the development of talent. The teacher's job is to place the talented student into the hands of the experts in the domain. More advanced teachers teach more advanced students" (p. 23).

Another important element to understand how teachers expanded students' knowledge and understanding was teacher interest. Teacher interest has been defined as "a motivational variable that refers to an individual's engagement with particular classes of objects and activities" (Frenzel, Goetz, Pekrun, & Watt, 2010, p. 509). According to Schiefele, Streblow, and Retelsdorf (2013), interest has three dimensions: subject, didactic, and educational. Subject interest refers to the subject content (e.g., biology) (Schiefele, et al., 2013). In extending this dimension, subject interest explains Category 1, which emphasised teachers' high levels of interest in the subjects that they taught. Additionally, this subject interest led teachers identified as inspiring to teach above and beyond the recommended curriculum (Category 3). Didactic interest is understood as the "teacher's interest in teaching methods"—how to teach and how to prepare teaching activities, etc.) (Schiefele & Schaffner, 2015). Additionally, by demonstrating high levels of didactic interest, teachers identified as being inspiring demonstrated their knowledge and interest to address the educational needs of their gifted students. Finally, educational interest refers to the diverse aspects in education, such as values, goals, and issues which need to be addressed (Schiefele et al., 2013). In this regard,

Category 3 provided understanding about how these inspiring teachers understood gifted education, their role as teachers of the gifted, and the importance of providing different educational opportunities for their gifted and highly able students.

According to different theories of interest (e.g., Hidi & Renninger, 2006; Krapp, 2005, 2007; Schiefele, 2009), there is another distinction for this construct. Researchers distinguish between situational and individual interest. Situational interest "'is a temporary state aroused by specific features of a situation, task, or object" (Schiefele, 2009, pp. 197–198). By contrast, individual or personal interest refers to "relatively permanent attractions to certain topics or domains (e.g., school subjects, specific knowledge fields)" (Schiefele & Schaffner, 2015, p. 159). Individual interest involves knowledge, values, and the perception of positive feelings about a particular topic (Schiefele & Schaffner, 2015; Wigfield, Cambria, & Eccles, 2012). This particular kind of interest is reflected in the student participants' descriptions of the teachers who were identified as inspiring as highly interested and passionate about the fields of knowledge and subjects they taught. According to the student participants, this deep interest was transmitted to them, probably as situational interest early in the process, which promoted curiosity and led to their increased individual interest, which kept them learning and helped them to expand their understandings about the subject. This can be explained by the four-phase model of interest development proposed by Hidi and Renninger (2006). The four phases go from a temporary state of interest to a relatively permanent one, including triggered situational interest, maintained situational interest, emerging individual interest, and well-developed individual interest (Hidi & Renninger, 2006; Renninger & Su, 2012). More research is needed to clearly identify how teachers identified as inspiring helped their gifted students to transit from situational to individual interest (see Chapter 8). At this stage, it is possible to argue that this transition was influenced

by engaging and knowledgeable teachers, challenging and interesting activities, and academically safe learning environments.

From a theoretical viewpoint, and regarding the first phase of the core process, the nomination of these teachers as being inspiring by their gifted and highly able learners, meant that students were inspired by these teachers. According to Thrash et al. (2014), this component of the process of inspiration refers to "being awoken to the (perceived) intrinsic value of an elicitor object (e.g., a person, action, or scene)" (p. 497) (see Chapter 1). In this situation, the elicitor object was the teacher, and through them, the subject became inspiring as well. Gifted students were 'inspired by' their teachers and acknowledged this through their nominations, and by considering them as valuable role models. Being 'inspired by' has been theoretically related to evocation and transcendence (Thrash et al., 2010), which are two elements of the tripartite conceptualisation of inspiration. Students were inspired by their teachers and their characteristics (evocation), and due to this process of inspiration, gifted students developed new understandings about the subject and discovered new and better possibilities (transcendence). Moreover, gifted students were 'inspired to', which is discussed in the last phase of the core process.

Fostering positive attitudes—Second phase

Teachers identified as inspiring made efforts to promote their fields of knowledge as positive and worthwhile experiences for their gifted and highly able students. The discovery of new meanings about the subject (Phase 1), and the constructive effect of the three main categories, contributed to foster positive attitudes towards different dimensions (see Chapter 6).

In formal education, students attain knowledge and cognitive growth in addition to the development of pleasant and unpleasant emotions in relation to achievement and learning

(Frenzel, Goetz, Lüdtke, Pekrun, & Sutton, 2009). There is evidence from the field of psychology that teacher enthusiasm impacts students' emotions in the classroom learning environment (Keller, Becker, Frenzel, & Taxer, 2018; Keller, Woolfolk Hoy, Goetz, & Frenzel, 2016). Due to the constant interaction between teachers and students in the school context, emotions experienced in the common learning environment determine if experiences are pleasant or unpleasant, as part of the shared emotional experience that influences student motivation (Patrick et al., 2000; Frenzel, Becker-Kurz, Pekrun, Goetz, & Lüdtke, 2018). Due to teaching being an interpersonal endeavour (Butler & Shibaz, 2014), interactions are a constant within educational environments (Frenzel et al., 2018).

Researchers in the field of emotional contagion have demonstrated that emotions can be 'caught' from interactions (Frenzel, Goetz, Stephens, & Jacob, 2009; Kunter et al., 2011). As Frenzel, Goetz, Lüdtke et al. (2009) argued, "students can learn that a topic or learning task is valuable by teachers' comments, as well as by observing their teacher's enjoyment of the topic or learning task" (p. 706). As gifted student participants mentioned, the teachers identified as being inspiring were authentically motivated by the content they were teaching. This is related to the 'inspired by' component (Thrash & Elliot, 2003, 2004), displaying that teachers identified as inspiring communicated positive and engaging messages to their gifted and highly able students, having positive effects on them in relation to the subject and field of study. In their research, Frenzel, Goetz, Lüdtke et al. (2009) found that students' enjoyment was positively affected by the observable enthusiastic behaviour of the teachers. In this way, Frenzel et al. (2018), stated that students' enjoyment levels were perceived by their teachers as evidence of their engagement, which had a positive effect on the enjoyment experienced by the teachers. These findings support the idea of the teachers identified as inspiring, as being enthusiastic about teaching gifted learners, due to the students' motivation and interest for learning.

A classic study about the importance of enthusiastic behaviour in a presenter is the *Doctor Fox* study (Naftulin, Ware, & Donnelly, 1973). In their study, the researchers concluded that students declared that they had learned from the presenter, who was positively ranked by the students due to his enthusiastic behaviour, even when the content taught was of poor quality (Naftulin et al., 1973). However, more than 40 years later, Peer and Babad (2014) published an evaluation of this study and concluded that the original authors erroneously interpreted the results. According to Peer and Babad's study (2014), students provided a positive evaluation of a speaker who presented enthusiastically; however, they reported no learning. In this regard, teachers identified as inspiring by the student participants were valued for their enthusiastic behaviour and students valued how knowledgeable their teachers were, as they connected these two elements as a whole.

Three main characteristics of teachers identified as inspiring were relevant for the second phase: teacher enthusiasm, passion, and humour. According to Lazarides et al. (2018), teacher enthusiasm is conceptualised as "the enjoyment, excitement, and pleasure that teachers experience during teaching" (p. 2). Patrick et al. (2000) investigated the effects of teacher enthusiasm on students' intrinsic motivation to learn and psychological vitality. They concluded that teacher enthusiasm was the strongest and most influential predictor of the studied variables. This construct can be used to refer to two elements: a feature of instruction and an energetic delivery (Kunter, Frenzel, Nagy, Baumert, & Pekrun, 2011); and to describe the experience of teachers while teaching (Long & Hoy, 2006). In the same way, Frenzel, Goetz, Lüdtke et al. (2009) differentiated the behavioural aspect of teacher enjoyment as enthusiasm displayed during teaching and the subjective enjoyment as an affective experience of teachers when they are teaching.

The mentioned descriptions clearly reflect the aspects stated by the gifted student and the teacher participants, who highlighted that inspiring teachers were enthusiastic when

teaching the subject content to their students, and by the subject itself. Teachers' enthusiasm about their subjects and teaching were related to the provision of teacher support, affecting student motivation in positive terms (Kunter et al., 2013). The behavioural expressions of enthusiasm, also known as teacher expressiveness (Babab, 2007), can be articulated in different manners. Some behavioural expressions of enthusiasm in teachers include facial expressions and gestures, different intonations, humour, as well as verbal and non-verbal samples of excitement (e.g. Feldman, 2009; Marsh & Bailey, 1993). These expressions of enthusiasm explain inspiring teachers' enthusiastic behaviours. Findings from the present study provided detailed information about behaviours and strategies used by teachers identified as inspiring to display their enthusiasm (see Chapter 3)—using humour, different intonations, movements around the classroom and changing the volume of their voice. Additionally, some teachers were direct and explicit in the verbal communication of their enthusiasm and love for their subject, which student participants described as contagious learning experiences. These findings are in line with Frenzel, Goetz, Lüdtke et al. (2009), who argued that "teacher enjoyment must be made visible and expressed as an enthusiastic teaching style in order for it to influence student enjoyment" (p. 706), supporting what these identified inspiring teachers did to communicate their enthusiasm to their gifted students.

Teacher enjoyment played a significant role in how gifted and highly able students evaluated the subject, and how they experienced learning within the classroom. This is supported by the research conducted by Frenzel, Goetz, Lüdtke et al. (2009), who found a mediation, in which teacher enjoyment was positively related to student enjoyment, and that this was mediated by teachers' observable expressions of enthusiasm. When teachers demonstrate high levels of enthusiasm, students tend to be more engaged and enthusiastic about learning (Patrick et al., 2000). Gifted student participants mentioned that they enjoyed these classes due to the teachers' enthusiastic performance and teaching approach, which led

to experiencing enthusiasm themselves. Kunter et al., (2011) argued that motivated students improve teacher enthusiasm, and that this motivation might be driven by teacher enthusiasm, which describes a reciprocal effect. This cycle was also reported when explaining Category 2 (see Chapter 4), and in relation to the second phase of the core process.

Additionally, the evident levels of enthusiasm displayed by the teachers identified as inspiring were described by the gifted students as genuine and a valuable feature for them. In their study about inauthentic expressions of enthusiasm on teachers, Taxer and Frenzel (2018) found that teachers, who experienced an imbalance between expressed enthusiasm and the experience of teaching-related enjoyment, resulted in negative consequences, especially for their occupational wellbeing. These teachers identified as inspiring expressed high levels of passion and enjoyment for their subject content and for teaching their subjects (Category 1). Taxer and Frenzel (2018) identified five groups of teachers according to their levels of expressed enthusiasm and teaching enjoyment: happy enthusiasts, well balanced, indifferent, slight pretenders, and pretenders. Teachers identified as being inspiring seem to fit the category of happy enthusiasts, who experienced high levels of expressed enthusiasm and experienced real enjoyment. When teachers perceive low levels of motivation in their students, they tend to express inauthentic enthusiasm more often (Taxer & Frenzel, 2018). Teachers identified as inspiring described their gifted and highly able students as highly motivated; therefore, these teachers might not require expressing inauthentic enthusiasm. These authentic expressions of enthusiasm in their inspiring teachers, helped gifted students to develop and maintain positive attitudes.

As explained in Chapter 6, attitudes refer to the evaluations towards various aspects of the social world, and once they are formed result challenging to change (Kassin et al., 2011). One relevant source of attitudes is acquired through social learning (Baron, Branscombe, & Byrne, 2008; Baron & Byrne, 2003). Inspiring teachers contributed to the development of

positive attitudes by being enthusiastic, motivated and knowledgeable about their subjects. In some situations, and due to previous experiences, gifted and highly able students had negative attitudes towards subjects; however, these inspiring teachers were able to change them into positive attitudes. One important strategy to do so was teachers' content knowledge and their ability to expand students' knowledge and understanding (Phase 1). Additionally, according to different approaches in persuasion, credible communicators—this is expert presenters—are more likely to be persuasive than non-experts (Myers, 2002). Considering that, the student participants were academically gifted and highly able; therefore, highly intelligent, which meant that changing their attitudes was more challenging (Rhodes & Wood, 1992). Moreover, as attitudes affect behaviour (Baron & Byrne, 2003), there is a clear connection with Phase 3 in the increased willingness of student participants to take constructive action, and maintain their engagement with the subjects.

Teachers who experience high levels of subjective enjoyment tend to teach more enthusiastically (Frenzel, Goetz, Lüdtke et al., 2009), which increases the opportunities to foster positive attitudes. This subjective enjoyment—the affective dimension—together with their behavioural expressions of enthusiasm and teacher interest, led them to teach their gifted and highly able students in response to their educational needs. These emotional features, the teachers' cognitive abilities and their deep knowledge, and their expertise and experience, led them to teach above and beyond the recommended curriculum (see Chapter 5). This was because teacher enthusiasm corresponds to the affective component of interest, displaying the theoretical overlapping of these two constructs (Schiefele et al., 2013). Teacher enthusiasm plays an important role in teaching quality (Kunter et al., 2011; Kunter et al., 2008), effective teaching (Feldman, 2009; Long & Hoy, 2006), student motivation (Lazarides et al., 2018; Long & Hoy, 2006; Patrick et al., 2000), as well as on students' willingness for learning and engagement (Kunter et al., 2011). Additionally, teacher enthusiasm was reflected in their

interest to keep learning and developing their abilities in the field, which also provided learning experiences for their gifted students.

Passion is also related to teacher motivation and enthusiasm, which was an important characteristic identified in the inspiring teachers. According to the gifted student participants' description of their inspiring teachers, passion was related to teachers' interest in its three dimensions, but more specifically to subject and didactic interest due to passion being considered to be directed towards a specific domain (Subotnik et al., 2011). In addition, passion was related to teachers' enthusiasm in its affective and behavioural expressions. Gifted students mentioned that these teachers transmitted their passion to them, enhancing student interest and enthusiasm for their fields of study by acting as role models for them. Passion is also an important construct in Piirto's Pyramid of Talent Development. Piirto's (2000) model used the construct of vocational passion to refer to "the thorn, because it bothers, it pricks, it creates an obsession until the person begins to work on developing the talent" (p. 23).

Fredricks, Alfeld, and Eccles (2010) conducted research using data from a larger longitudinal study, in which they found that gifted and talented students experienced passion more commonly in non-academic activities (i.e., sports) rather than in academic settings. Participants from that study argued that the school environment was not engaging and motivating for them (Fredericks et al., 2010). However, gifted student participants in this study expressed that their inspiring teachers made them highly passionate, interested, and enthusiastic about the subject content, which motivated them to invest their time outside school and to keep expanding their learning (Phase 3). These findings highlight the importance of having passionate teachers teaching gifted and highly able students. Additionally, passion for the teaching profession should have a more central role in pre-

service teaching programs and in-service professional learning (Phelps & Benson, 2012) (see Chapter 8).

The final theoretical dimension, which contributed to the second phase of the core process, was teachers' humour. Humour is a common ingredient in all human interactions as well as in the maintenance of relationships (Kuipers, 2009). Van Praag, Stevens, and Van Houtte (2017) investigated how humour linked to teacher–student relationships and concluded that teachers used humour as a strategy to facilitate teaching and learning, whereas students used humour to articulate their attitudes towards teachers and school. These inspiring teachers used humour as a teaching strategy that aimed to enhance student engagement and motivation (Category 3) in addition to the creation of safe and welcoming learning environments (Category 2). Humour was also a significant component of the learning process, as gifted students mentioned that having fun while learning was important for them as it fostered positive attitudes towards their learning and fields of study. Further, teacher and gifted student participants agreed that they possessed a similar sense of humour, which facilitated their interactions and the development of close relationships. This finding supports Van Praag et al.'s (2017) contention that humour facilitates teacher–student bonding, especially when they possess a congruent style of humour.

Therefore, teacher enthusiasm, passion, and humour appeared to contribute to students' positive attitudes towards their teachers, their learning, fields of study, the students themselves, and their classmates (see Chapter 6). As mentioned previously, these teachers were valuable role models, who maintained, developed or changed students' attitudes towards their subjects in positive terms. Phase 1 and Categories 1, 2, and 3 had a significant role in fostering positive attitudes for the students to learn, remain motivated, and engaged in their fields of study beyond their time in the classroom.

Encouraging students to take action—Third phase

Teachers identified as inspiring motivated and encouraged their gifted and highly able students to undertake constructive action regarding their fields of study. This last phase of the core process was closely related to the three main categories. In order to encourage their gifted students to take action, teachers were knowledgeable and passionate (Category 1), developed academically safe learning environments (Category 2), and taught above and beyond the recommended curriculum (Category 3). Therefore, many of the elements discussed in the previous sections contributed to the third phase of the core process, including teachers' enthusiasm, interests and goals; teachers' knowledge; teachers as role models; and the learning environment. This section emphasises how the tasks and activities developed by the identified inspiring teachers helped to engage their gifted and highly able students to take action in diverse areas (see Chapter 6) and examines the connection between this process and previously discussed topics.

The literature on factors that promote optimal learning environments often include the concept of challenge (e.g., Kronborg & Plunkett, 2015; Scager, Akkerman, Pilot, & Wubbels, 2014). Assouline, Lopkowski-Shoplik, and Colangelo (2018) refer to the notion of *optimal match* as "the match between student readiness to learn and complexity and novelty of content that are necessary for new learning" (p. 339). Challenging tasks require high levels of intellectual engagement and are cognitively demanding (Russo & Hopkins, 2019; Sullivan et al., 2014). Past studies on challenge and gifted education concluded that lack of challenge was associated with boredom due to students not receiving adequate teaching strategies and curriculum to address their educational needs (Feldhusen & Kroll, 1991; Gallagher, Harradine, & Coleman, 1997). More recent studies have established that challenging tasks intrinsically motivated gifted students (Diezmann & Watters, 2002), and that being unchallenged is one of the main components of boredom (van Tilburg & Igou, 2012).

Kanevsky and Keighley (2003) noted that "learning is the opposite of boredom and learning is the antidote to boredom" (p. 20). Teachers identified as inspiring, in order to encourage their gifted and highly able students to take action, developed and presented tasks that were at the right level of challenge for their students to be motivated and engaged with the field of study. Otherwise, as teacher participants explained, when tasks were too easy or difficult, the cognitive value of the tasks were limited, negative emotions emerged, which stifled students' intrinsic motivation and flow, and prevented optimal learning from occurring (Csikszentmihalyi, 1975; Csikszentmihalyi, Rathunde, & Whalen, 1997; Diezmann & Watters, 2002). Working in a state of flow promoted mastery goals and the emergence of cognitive ability (Thomas, 2011).

To understand the significance of tasks organised by the teachers identified as being inspiring, it is important to bring into this discussion different elements—the importance of a mastery-oriented classroom, motivation for teaching and teaching practices, and subjective task value. Previous sections examined how the nominated teachers presented a mastery goal motivation for teaching and created a mastery goal classroom structure, which demonstrated their strong emphasis on students' learning and understanding (see Phase 1). Teachers who have these orientations, also tend to use mastery-oriented practices (Butler & Shibaz, 2008; Retelsdorf, Butler, Streblow, & Schiefele, 2010). Examples of mastery goal practices include the cognitively activating practices, which were frequently used by mastery-oriented teachers (e.g., Butler & Shibaz, 2014; Retelsdorf et al., 2010; Schiefele & Schaffner, 2015; Shim, Cho, & Cassady, 2013). Cognitively activating practices aim to develop students' competence by providing challenging tasks and promoting critical thinking (Retelsdorf et al., 2010). As previously stated, this kind of practice promotes students' mastery goals, when students are aware that these tasks are cognitively activating (Schiefele & Schaffner, 2015).

Moreover, teachers' interest also contributed to understand Phase 3. Schiefele et al. (2013) concluded that didactic interest was usually linked to the use of cognitively activating practices—such as challenging learning tasks—and that didactic and educational interest predicted teachers' use of mastery-oriented practices. However, they stated that subject interest did not make a significant contribution to instructional practices (Schiefele et al., 2013). This result does not fit with the understanding of these teachers identified as inspiring, because they displayed high levels of subject interest—implicitly and explicitly in their pedagogical practices—motivating and engaging their gifted students to be highly interested in their subjects. These teachers showed their gifted and highly able students why they were passionate for their subjects and for teaching it, using an engaging style as their instructional strategies were affected by their subject interest (see Chapter 5). An extension of this point is that teacher subject interest could be empowered by their enthusiasm for their subject, being an interaction that requires further research.

Another relevant aspect is the subjective task value. The expectancy–value theory of achievement motivation (Wigfield & Eccles, 2000) establishes that motivation is shaped by mental factors such as self-efficacy and subjective task value. Subjective task value is understood as the importance attached by individuals to particular options (Eccles, 2005). As Subotnik et al. (2011) reflected, students assess tasks according to their skill levels and their motivation to engage in the tasks. Their engagement in a particular task will depend on their evaluation of their efficacy to perform, and the outcomes once the task is completed (Subotnik et al., 2011), which according to Bandura's (1977, 1997) concepts, efficacy expectations and outcome expectations. Bandura (1986) also stated that in some situations, students can have high levels of self-efficacy but not persist in tasks if they allocate low value to the tasks or high costs. Eccles (2005) suggested that mastery-oriented environments may increase student perceptions of subjective task value.

Subjective task value has four components: intrinsic value, utility value, attainment value and cost (Eccles, 2005; Eccles et al., 1983). Intrinsic value refers to the enjoyment one has when engaging in a particular task, utility value is the usefulness of the task for the individual's future plans, attainment value refers to the individual's perceived importance of doing well in the task, and finally cost is defined as the negative aspects of engaging in a task (Lazarides et al., 2018; Vanslambrouck, Zhu, Lombaerts, Philipsen, & Tondeur, 2018; Wigfield & Eccles, 2000). These four components provide appropriate grounds to discuss how teachers identified as inspiring encouraged their gifted and highly able students to take action.

First, students' intrinsic value was fostered by teacher enthusiasm, interest, and passion towards the subjects and teaching, transmitting these features to their students by modelling and interacting with them in positive learning environments (Phases 1 and 2). Teachers identified as inspiring were able to develop, increase or maintain students' interest and motivation—for example, by encouraging their students to put in extra effort and investing more time learning about the field of study (see Chapter 6). For utility value, teachers had a clear emphasis on the students' futures, contributing to their career decisions and establishing new connections between their subjects and the students' career plans. Teacher participants' knowledge and experiences were valued by the gifted students, as the students perceived that their engagement in tasks was useful for them. Other researchers have also found a relation between utility value and students' task-related career plans (Harackiewicz, Rozek, Hulleman, & Hyde, 2012). Attainment value was related to students' identities as gifted and highly able learners, evidencing their willingness to address their teacher's expectations, do well at school by getting high scores, and anticipation of the level of learning they could achieve from tasks. As mentioned before, inspiring teachers have learning as the main aim in their lessons—mastery goal—which probably contributed to the

students' understanding that activities presented in these classes were meaningful, and positive for their learning. Research has demonstrated that intrinsic and attainment value are related to domain-specific free-time involvement (e.g., Durik, Vida, & Eccles, 2006; Eccles & Harold, 1991; Nagengast et al., 2011). It was not possible to find enough data to explain the cost component of the subjective task value, which is negatively related to academic retention intentions (Perez, Cromley, & Kaplan, 2014). A possible explanation is that all participants' answers had a positive focus.

Subjective task value is a fundamental construct to understand how inspiring teachers encouraged their gifted students to take action related to the time they invested in learning about their subjects, hard work, and future involvement in their related fields of study. For these reasons, students were willing to engage with the activities proposed by the teachers identified as inspiring, because the results were meaningful with high value for them and their futures. In this regard, Wigfield and Eccles (2002) established that students' subjective task value is related to activity choices and career plans.

Moreover, tasks presented in the classes of the teachers identified as inspiring were intellectually challenging for their gifted students and focused on their learning and understanding. For this reason, teacher support was critical to maintain the gifted students' motivation, engagement and willingness to take action. The ZPD model (Vygotsky, 1978) offers an explanation regarding teacher support. This model is related to the concepts discussed in this section. For instance, problematic tasks that are challenging for the individual have high cognitive value, and teachers play an important role as they support their students to address these challenges (Diezmann & Watters, 2002). Gifted student participants clearly indicated that inspiring teachers provided support when needed—not all the time— which is also discussed in the literature. When teachers provide academic support when it is not required by the students, this is associated with a decreased cognitive value of the task,

and gifted students are at high risk of receiving unnecessary scaffolding (Diezmann & Watters, 2002). To avoid this, teachers identified as inspiring made an effort to display their availability to provide knowledge, help, and support if needed, and to provide constructive feedback, which increased students' engagement and motivation for further learning in the fields of study. This indicated that Phase 3 led back to Phase 1.

Chapter 5 provided a detailed explanation of the main teaching strategies used by the teachers identified as being inspiring. These strategies—discussion, mistakes, group work, teacher stories, and practical lessons—emphasised that students valued challenging tasks (cognitively activating practices), experienced enjoyment during learning, and had learning as the main aim (mastery goal structure). For instance, student participation in dialogic co-constructions of meaning enabled more effective learning (Wells & Arauz, 2006). Based on how teachers identified as inspiring conducted classroom discussions with their gifted students, it was possible to identify elements from dialogic teaching, such as the promotion of higher-order thinking abilities to foster students' learning and understanding (Alexander, 2006; Reznistkaya & Gregory, 2013). Additionally, "questions in dialogic teaching are structured in such a manner so as to provoke thoughtful answers and these answers are supposed to provoke further new questions" (Sedova, Sedlacek, & Svaricek, 2016, p. 15).

The emphasis on the students' voices was engaging for the gifted learners, who considered that discussion with their classmates and teachers consolidated their learning. Another pedagogical approach that could explain teachers' strategies was inquiry-based learning, which "is based on questioning and investigation; the questions asked and means for investigation are wide-ranging, nonlinear, and idiosyncratic" (Chichekian & Shore, 2013, p. 123). This kind of learning process generates opportunities for students to engage in scientific process and use critical thinking skills when solving the tasks (Gibson & Chase, 2002). Inquiry-based learning situations trigger students' curiosity, and promote students' thinking

processes (Robinson, Shore, & Enersen, 2007; Treagust & Tsui, 2014). Although these characteristics fit what the inspiring teachers did in their classrooms, more research is needed to determine if these practices effectively correspond to a dialogic teaching approach or inquiry-based learning.

Teachers identified as inspiring promoted group work and usually gave enough freedom to their gifted and highly able students to choose and organise their own groups. As two of the three participating secondary schools were selective school environments, or with SEAL programs for gifted and highly able learners in the Years 9–11, students were given more options to work and learn alongside like-minded gifted peers. Researchers agree that gifted students prefer to work in groups, especially when members contribute equally and when the learning environment is supportive (Chichekian & Shore, 2013; Samardzija & Peterson, 2015). In their study, Samardzija and Peterson (2015) found that their gifted student participants were sensitive to being wrong, which was why they preferred to work in groups, so they could ask questions and avoid being incorrect. This concern was also identified by the teacher participants in relation to their gifted and highly able students; however, these teachers emphasised that making mistakes, being wrong, or not knowing the answers were all part of the learning process, as they developed a learning environment in which mistakes were accepted and used to teach and promote learning (see Chapter 5). According to Grassinger, Scheunpflug, Zeinz, and Dresel (2018), "errors can be very useful for the development of talent and abilities as long as they are perceived and seized upon as learning opportunities, in other words when the reactions to errors are adaptive" (p. 45). Errors can contribute to the development of a tolerant and respectful learning environment. Moreover, errors can occur when students are learning in areas beyond their knowledge and abilities (Grassinger et al., 2018). For this research, this was perceived as a result of challenging tasks and student participants' motivation to continue learning.

In summary, the inspiring teachers encouraged their gifted and highly able students to take action by being role models of enthusiasm, passion and interest in their subjects, promoting challenging tasks, which were assessed by the gifted students with high subjective value, and promoting mastery-oriented learning environments. Therefore, gifted students were 'inspired by' their teachers and 'inspired to' (Thrash & Elliot, 2003, 2004). The last phase of the core process is directly related to these two components in the process of inspiration, but more specifically the 'inspired to' component, which is related to the motivation (Thrash et al., 2010) to "extend the inspiring qualities exemplified in the evocative object" (Thrash et al., 2014, p. 497). As Piirto (2007, 2019) argues, talent is not sufficient to maintain the involvement of a person in a particular field; the will and motivation to develop talent are critical. Therefore, these teachers inspired their gifted and highly able students to continue their involvement in their areas of knowledge, reinforcing these, and leading them to expand their knowledge and understanding (Phase 1), which helped to foster positive attitudes (Phase 2), and maintain the cycle process explained in Chapter 6.

Summary

This chapter has outlined the main components to situate the findings within the existing literature. It explained the role of memos in the development of an updated theoretical framework, and their guide in the selection of adequate theoretical material. The literature comparison was organised according to the three phases of the core process: *expanding students' knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action.* Diverse constructs from the field of education and educational psychology were found to be appropriate to expand the understanding of the core

process. The next chapter presents the conclusion, which presents the evaluation and contribution of the present study.

Chapter 8: Conclusion

Chapter Overview

This chapter presents the conclusion of this constructivist grounded theory study. It begins with a recapitulation of the study and the research process to highlight how the findings and the new theory address the research questions. The theoretical construct was grounded in data and followed systematic processes according to constructivist grounded theory guidelines. Four criteria, presented by Charmaz (2014) are addressed to evaluate the theory and ensure its quality: credibility, originality, resonance, and usefulness. The limitations of this study are presented to be considered by future researchers. Contributions for theory, practice, and policy are explained, and recommendations for educational practice and future research are discussed. The chapter ends with concluding remarks and researcher reflections.

The Study and the Research Process

As described in Chapter 2, constructivist grounded theory was identified as the most appropriate methodology to investigate the studied phenomenon and address the research aims. This research design was used to explore and respond to the research questions presented in Chapter 1:

Research question

How do teachers inspire their gifted and highly able students in secondary schools, which provide for gifted and highly able learners in Victoria, Australia?

Sub-questions

1. What aspects do gifted and highly able students consider when nominating their teachers as inspiring?

2. How do teachers identified as inspiring teach gifted and highly able students and what are the pedagogical strategies used?

3. In what ways do teachers identified as inspiring by gifted and highly able students influence each other in the classroom?

4. What processes contribute to and explain the interaction between teachers identified as inspiring, and their gifted and highly able students?

The role of teachers in the education of gifted and highly able students has been extensively discussed in the literature. However, how teachers can inspire their gifted students to maintain their engagement in a chosen field of study and with the learning process in general has not been investigated. Answering the research questions helped to conclude that *Opening new possibilities* was the core process used by teachers who were considered inspiring by their gifted and highly able students. In addition, this core process was explained through three phases: *expanding students' knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action.*

The theory, which emerged from participants' experiences and perceptions, offers a new understanding of the interactions between teachers and their gifted and highly able students. This theoretical model is unique as it provides a comprehensive understanding of the characteristics, strategies, and practices used by the teachers identified as inspiring, from their perspectives and those of their gifted and highly able students. Different procedures were followed to ensure the quality, trustworthiness, and rigour of the research process (see

Chapter 2). Contextual determinants were considered to analyse and report the findings and to understand and explain the emergent theory.

Due to the methodological approach used in this study, all initial ideas for the theoretical framework and literature review were presented in the format of sensitising concepts (see Chapter 1). These early theoretical conceptualisations were modified, updated, and developed according to the findings, following completion of data collection and analysis, as stated by grounded theory guidelines (see Chapter 7). Some elements from the initial framework were retained, such as the idea of inspiration, due to the findings from the present study supported the conceptualisation provided by Thrash and Elliot (2003, 2004). Additionally, the importance of the environment for the development of talent, and flow experiences were also retained; however, they were explained with different emphases. The unanticipated theoretical elements were explained in Chapter 7 in the discussion of the position of this study within the existing literature, which provided new knowledge and understanding that can be considered in future research, policies, teacher programs, and in the daily practices within classrooms.

Evaluating the Grounded Theory

The theoretical construct was grounded in data and followed systematic processes according to constructivist grounded theory guidelines. According to Charmaz (2006, 2014), the core process is in relation to the codes, categories, and the final theory. Constructivist grounded theory proposes four criteria to evaluate the theory to ensure its quality: credibility, originality, resonance, and usefulness (Charmaz, 2014).

Credibility

Credibility was achieved in this study using several strategies. Data were collected in three different secondary schools, which provided information and understanding of the phenomenon in different contexts. The influence of context was considered throughout the process, which helped to provide further explanation and arguments to report the findings. Additionally, diverse voices were included through three different data collection methods—91gifted and highly able students responded to the online questionnaire, 11 teachers nominated as being inspiring were interviewed, and 11 classroom observations were conducted. Theoretical sampling was used to organise the interviews, which followed grounded theory guidelines. Member checking was conducted with the 11 participating teachers. Data were saturated during the seventh classroom observation and the eleventh interview. However, as explained in Chapter 2, it was decided to conduct all the classroom observations, as going to teachers' classrooms was considered a significant experience in order to gain better understanding of the contexts and to respect the consent given by teacher participants.

Constant comparison methods between data, codes, and categories, and further discussions with supervisors enhanced the credibility of findings. Moreover, including participants' words through quotations in the thesis provided evidence that conclusions were reached based on data. Memo writing, a methodological diary, and a meticulous analytic process to reduce biases and preconceptions were further evidence of the reflexivity procedures behind this study. Finally, a detailed section on data collection and data analysis processes was presented in Chapter 2, which provided evidence of these processes for future researchers seeking to replicate this study or to understand the process of theory development.

Originality

The present research provides new insights in terms of knowing how some teachers inspired their gifted and highly able students using psychological and educational constructs to explain this phenomenon. Data were collected from three different educational environments, and its analyses provided a complex and renewed interpretative understanding of the studied phenomenon (see Chapter 6). The theory, which emerged in this study, might contribute to teacher development and professional learning for pre-service and in-service teachers. Additionally, this theory might be helpful for teachers to develop strategies that empower and inspire their gifted and highly able students through knowledge expansion, positive learning experiences, and encouragement of students' engagement in their chosen fields of knowledge. Therefore, the theory presented in this study is an innovation, in which teachers identified as inspiring demonstrated that their practices to teach gifted students "fill a gap, meet a need, provide a practical solution, and deserve notice" (Robinson, 2012, p. 5).

While generalisation is not the aim of grounded theory studies, the theory, which emerged in this research, provides—from an original perspective—a framework to interpret how teachers inspire their gifted and highly able students by opening new possibilities to them. This study contributes with new insights to existing knowledge and expands and refines current ideas.

Resonance

Charmaz (2014) emphasised that grounded theory should make sense to participants, and offer deeper insights about their lives and worlds. To ensure this, data were carefully collected and analysed, and the researcher constantly referred back to the transcripts and codes to remain close to the data and the participants' worlds.

Teachers were invited to discuss and evaluate whether the theory presented in Chapter 6 reflected their experiences, using the visual representation presented in Figure 6.1. Teachers provided insights to identify the weaknesses and strengths of the theory in terms of the structure of the visual representation and the content. Teachers' comments were included in the explanations presented in Chapter 6, and in the visual representation (see Figure 6.1). In general, teacher participants were satisfied with the theory and considered that it reflected the main topics they felt were critical to inspire their gifted and highly able students in a way that they did not previously consider. Teachers mentioned:

> I think this is great; it summarises obviously an immense amount of work in a really nice and easy way to follow, and it is something that I can see happening around this place all the time which is really good …. I wouldn't change anything (B_IV).

> If you asked the four of us at the beginning of the year, we [the other teacher participants] didn't really have a clue about what we were doing that was different. It is only from your observations [the researcher] and your discussions with the students, that we got a clearer picture of it. And I am actually more aware of it on my own teaching, and I am sure that I am doing it, so this process has been really helpful. I am grateful to be part of the project (C_VIII).

Usefulness

According to Charmaz (2014), the theory presented should be useful in the everyday world. This theory provides useful guidelines for those who are currently teaching or who will be teaching gifted and highly able students, in terms of what works effectively for these students and from their perspective.

The components and arguments of the theory presented in Chapter 6, can be used by a wide range of professionals—teacher educators in their professional and teacher development programs, universities, departments of education, pre-service and in-service teachers, educational psychologists, principals, and policymakers—to develop, enhance, and adjust their programs, practices, and guidelines for those who teach and work in the field of gifted education. This study provides ideas and strategies to implement in everyday situations for educational providers, who seek to improve the provisions offered for gifted students and acknowledge the critical role that teachers play in the learning process of these students. Specific contributions are further discussed below.

Limitations

Although this study satisfies different criteria of quality, rigour, and trustworthiness, some limitations were also identified. Recognising the limitations of a study is an important part of an empirical work as it provides insights to improve procedures and to promote further research (Creswell, 2016). The limitations that are mentioned in this section display the reflexivity practices implemented by the researcher throughout the constructivist grounded theory study.

Limitations of this study are recognised in three areas. First, generalisation is not the aim of a qualitative study (Creswell, 2013). By using a qualitative approach, the scope of generalisations was limited, due to the data being grounded in participants' experiences (Charmaz, 2014; Corbin & Strauss, 2008). For this reason, a rich and thick description of procedures, participants and settings were provided in Chapter 2 and contextual determinants were explained in Chapter 6. This description facilitates the judgement and methodological decisions of future researchers to use the findings appropriately and to consider the applicability for their own research.

Second, limitations were identified in the data collection methods. Using an online questionnaire with the gifted and highly able student participants, information was missed in relation to non-verbal data, or potential additional data that students could have added in an interview. Additionally, classroom observations were conducted, in which the presence of the researcher within the classroom potentially changed the normal dynamic of the class. For example, one teacher participant anticipated in the interview that he would be nervous during the observation because it was not a natural practice for him. Otherwise, participating teachers did not report any inconvenient or uncomfortable feelings arising from the classroom observations. However, more than a single classroom observation for each teacher may have provided more information, or further observations of the class with different teachers, or even with non-gifted students to establish differences in their teaching and relational practices.

Some limitations in terms of the participants of the study were also identified. Even though participation in this study was voluntary, students were under 18 years old at the time, and parental consent was required for them to participate. After the consent forms were sent, many documents were not returned. As a result, fewer students were able to be invited to participate in the research. Further, a gender imbalance was noted within the student participants, with 65.93 per cent of females versus 34.07 per cent of males, because one of the school settings was an all-girls' secondary school. Having an equal distribution of gender might have led to a different distribution of teacher nominations. Additionally, primary and rural settings were not considered in this study, partly because no strong programs for gifted students exist in Victorian primary and rural school settings, in order to select students. However, the study was developed with three different educational environments—public and private, with different provisions for gifted students, including the experiences of gifted and highly able students, and teachers identified as inspiring. Having other participants'

perspectives—such as from former students and heads of gifted education within the schools—may have affected the findings. Due to the nature of this study, students who participated each had positive experiences with some of their teachers, which motivated their participation in this research.

Finally, the evaluation of the theory according to the criteria presented in the previous section was conducted with teachers. Students were not contacted as it was not explicitly mentioned in the consent form given to them and their parents. Feedback from students may have provided invaluable insights in terms of resonance to evaluate whether the theory reflected their experiences with the teachers identified as inspiring.

These limitations were considered in the interpretations of findings and in the implications for future researchers, who seek to conduct studies in this area. Limitations described in this section have informed the recommendations for future research and contributed positively for a better understanding of the field.

Contributions and Recommendations

In consideration of the limitations mentioned above, this study makes a contribution with its theoretical understanding, practical knowledge, and guidelines for educational policies that regulate gifted education in Victoria. These three areas of contribution—theory, practice, and policy—indicate the significance of this study in the field of gifted education and provide insights for recommendations.

As mentioned in the originality criterion to evaluate grounded theory studies, this research contributes to the theoretical literature in the field of gifted education from a unique perspective. This contribution is due to the concepts deployed in the study, which were used from a new and research-based perspective, such as the psychological construct of inspiration. The emerged theory presented in this study offers a new contribution to the

theories and models in the field, and a better understanding of how secondary teachers inspire their gifted and highly able students. The theory provides practical ideas about teacher characteristics, practices, and activities to promote students' engagement in their fields of knowledge and the learning process in general. Therefore, these elements—which are based on what works when teaching gifted and highly able students—might be considered in varied options of learning for future and current teachers in the field of gifted education.

To the best of the researcher's knowledge, there were no existing theories or models that explained the studied phenomenon, which is why this study was conducted using a grounded theory approach. Moreover, the theory—*Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students*—offers a dynamic understanding of how inspiring teachers and their gifted and highly able students interact within the learning context, and how the impact from these teachers on this cohort of students can transfer beyond these environments. The theory proposed in this research inspires diverse recommendations for educational practice and for future research in the field of gifted education.

Recommendations for educational practice

As mentioned in Chapter 1, Australia has not established a national policy regarding gifted students and their education, nor provided updated policy guidelines for educating gifted and talented students in Victoria. Therefore, teachers of the gifted often resort to using general guidelines to work with the diverse educational needs of gifted students, which might not be helpful in addressing the socioemotional and academic needs of their gifted learners. Findings from this study provide insights to develop recommendations for teacher education programs and educational practices.

Findings demonstrated the importance of teachers' self-efficacy, motivation, professional competence, and teacher interest and enthusiasm to teach gifted and highly able

learners. According to participants, these characteristics were conceptualised as being knowledgeable and passionate teachers, which were valued by their gifted students. Therefore, it is recommended to incorporate teachers' self-efficacy development and its three components (engagement, instruction, and management), teacher interest and its three dimensions (subject, didactic, and educational), and teacher enthusiasm and its behavioural and subjective types as part of initial teacher education programs at universities, and professional development in gifted education for teachers. By doing this, teachers of the gifted might be able to expand gifted and highly able students' knowledge and understanding, foster positive attitudes in their students, and encourage them to maintain their engagement in their chosen fields of study. It is important for teachers of the gifted to keep learning and to maintain their intellectual curiosity, in order to be positive role models for their gifted students.

According to the findings presented in this study, teachers' knowledge played a critical role in the initial phase of the core process. Therefore, providing high-quality opportunities for pre-service and in-service teachers will contribute to the development, maintenance, and updating of teachers' knowledge and teaching skills for their gifted and highly able students. These opportunities need to provide experiences for teachers to acquire knowledge, learn how to teach effectively, how to create safe learning environments, and how to promote challenging learning experiences for their gifted students, in order to enhance the quality of their teaching approach. Additionally, it is recommended that teaching programs include more opportunities for gifted education, evaluating the elective option for the current units on offer in Victorian universities.

Furthermore, to have teachers who are knowledgeable in their areas of expertise, and enthusiastic about what they teach, it is important to ensure that teachers teach within their areas of knowledge and that they receive regular professional developmental learning

opportunities to increase their expertise according to their interests and professional needs. As Robinson et al. (2007) stated, "teachers who are serious about improving their ability to meet the needs of all their students may take on the personal challenge of rigorously studying their own teaching" (p. 268). This might facilitate gifted students having classes with teachers who are able to open new possibilities for them, by being passionate, enthusiastic, knowledgeable, and self-efficacious with the content and teaching of gifted and highly able students. It is also important that the teachers—who are valued positively by their gifted and highly able students—are retained in the teaching field, and that they are given the time and opportunities for reflective practices with other teachers, to learn, and improve together, as positive role models.

It is considered that discussing the importance of teachers' affective variables in the teaching program units and in professional development in gifted education, might make the teachers more aware of the importance of their role in modelling in a wide range of dimensions for their gifted students. Findings also illustrated the importance of teachers' awareness of the factors involved in opening new possibilities to their gifted and highly able students—enthusiasm, interest, goal motivation, self-concept. Hence, it is recommended to increase teachers' awareness of the importance of these factors, and how they contribute to the process presented in Chapter 6. By making these topics explicit within teacher education programs and professional development, it might be possible to enhance teachers' awareness of the message transmitted to their students in terms of their emotions, interests and motivations regarding their learning, effort, and enthusiasm for a particular subject. As a consequence, these factors will encourage their gifted students to maintain their engagement in their chosen fields by taking action to expand their knowledge and foster positive attitudes. This might be critical to determine the relationship that gifted learners develop within a particular area of knowledge (e.g., engaging gifted female students in STEM areas).

Finally, student and teacher participants highlighted the important role of their secondary schools in the gifted educational provisions offered, as being critical to the development of academically safe learning environments. Therefore, SEAL schools, select-entry secondary schools, and schools with designated programs for gifted and highly able learners, demonstrated their strength in contributing to students' talent development, as well as providing the environmental conditions in which teachers could inspire their gifted students. Maintaining and expanding these gifted educational provisions will create educational environments in which teachers could open new possibilities and be inspiring for their gifted and highly able students. Principals, Departments of Education, and policymakers might contribute to important decisions to help regulate these practices within schools.

Recommendations for future research

With an important need for research-based evidence about effective teaching for gifted students, the theory presented in this study provides a framework to understand how teachers can affect positively their gifted and highly able students, and inspire their academic pathways. This theory also provides insights into different strategies that teachers can use to inspire their gifted students and contribute more significantly to their academic lives in secondary schools. Findings from this study, theory evaluation, and the acknowledgement of limitations give rise to recommendations for future research. Several potential areas for future research emerged because the topic of teachers who inspire their gifted and highly able students requires further examination. This section includes insights for researching this area, including different participants, areas and perspectives to expand the current topic:

1. The theory presented in a grounded theory study should make sense to participants. As this process was verified with teacher participants, it will be useful to check resonance with secondary gifted and highly able students as a

validation process. It is foreseen that through focus groups and interviews with these students, which include key elements of the theory, valuable information could be collected to analyse students' agreement with the core process.

2. Future research could explore the duration of the 'inspiration effect' to determine the lasting impact that inspiring teachers have on the academic lives of gifted students. This might include former students to investigate whether they followed specific career paths related to a chosen field studied with a teacher identified as inspiring, or developed broader career paths related to this particular area.

3. A similar study might also be conducted in a different culture, for instance in Chile, to compare the criteria and actions that make teachers inspiring for gifted students in different countries and to highlight cultural influences.

4. Teachers' gender and their nominations as being inspiring teachers need further research. While female student participants nominated a similar percentage of female and male teachers, male student participants nominated significantly more male teachers as being inspiring. Moreover, more male teachers received the highest number of nominations. Clarifying the role of teacher gender in being consider as an inspiring teacher might contribute to the understanding of specific characteristics that are valued by gifted students.

5. Teachers who received the highest numbers of nominations were from the fields of mathematics, English, history, biology, and economics. It would be important to explore the relationships between these fields of knowledge and students' experiences with them to nominate teachers as being inspiring, and their future academic and professional decisions.

6. For this study, teachers were asked about their professional development experiences and studies undertaken to become teachers. It is well known that there

are limited opportunities in Victoria for teacher and professional development for pre-service and in-service teachers in the field of gifted education. Knowing the experiences of these inspiring teachers in more detail, might help to evaluate the relevance and usefulness of these programs, to modify them with the aim of offering adequate skills and tools to identify, teach, and guide gifted students.

7. Different elements were found to be critical characteristics of the teachers identified as inspiring, such as self-efficacy, achievement motivation, enthusiasm, among others. Identifying how these elements are embedded in teacher and professional development opportunities, teaching programs, policies in the field, as well as how they are developed, promoted and enhanced, would contribute to the improvement of these programs. Additionally, conducting further research about these characteristics using quantitative and qualitative approaches would provide detailed information about these teachers, including how they relate to each other and interact with gifted students' characteristics.

Concluding Remarks

This final chapter brings the thesis to an end, evaluates the theory that emerged using a constructivist grounded theory approach, and notes its limitations, contributions, and recommendations for the field of gifted education. This research sought to comprehend how teachers inspired their gifted and highly able students, to understand the meaning of their interactions, and to develop a theory based on participants' experiences and understandings. These aims were fully addressed as well as the research questions.

This study has illuminated understandings of the processes by which secondary teachers inspired their gifted and highly able students, and provided evidence of the need for including this topic in professional development opportunities and teacher education

regarding gifted education. This study arose due to the lack of available theories and models that explained the studied phenomenon. Findings of this research are in line with the conceptualisation of inspiration presented by Thrash and Elliot (2003, 2004) and Thrash et al. (2014). In addition, this study provides new insights into the field of gifted education by contributing a new understanding of the interactions between teachers and their gifted and highly able learners, and highlights the role of psychological factors as contributors of positive impact.

The three theoretical categories—*being a knowledgeable and passionate teacher*, *creating an academically safe learning environment*, and *teaching above and beyond the recommended curriculum*—identified the main elements of the studied phenomenon from an interpretative perspective. These categories played a central role in the core process—*Opening New Possibilities: Teachers Who Inspire Gifted and Highly Able Students*—which conceptualised the emergent theory with higher levels of abstraction. This process was explained through three phases—*expanding students' knowledge and understanding, fostering positive attitudes,* and *encouraging students to take action*—and was influenced by four contextual determinants, including students' developmental characteristics, school cultures, curriculum, and gifted educational provisions. All these elements demonstrate the new knowledge as a novel contribution to the field, based on theoretical conclusions, which emerged from the participants' experiences and understandings, and displayed a new perspective into their worlds. This study has inspired new interests, academic pathways, and research ideas, for me as a woman researcher, expanding my intellectual curiosity to learn and empower the field of gifted education in Chile, and in networks with the rest of the world.

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Appendices

Appendix A. Parent Invitation

Monash University Research Project

As part of a doctoral research project Dr. Leonie Kronborg and PhD student Claudia Cornejo from the Faculty of Education are conducting a study entitled *"Teachers who inspire gifted and highly able students"*. The purpose of this study is to learn about inspiring secondary teachers from Year 9 SEAL students in your school. This study aims to learn about characteristics of any inspiring secondary teachers they have had in the SEAL program and how and why they might inspire students with high abilities. To identify the inspiring secondary teachers we are looking for students in Year 9 to participate in this study

We would really like you as parents of Year 9 SEAL students to consent to have your son/daughter to participate in this study. Your son/daughter is under no obligation to consent to participate once you have agreed.

If you agree for your child to take part in this study please read the information attached in this link **[LINK]** or in the QR code **[QR CODE]**, and return the consent form with your Year 9 SEAL student to a box outside the office as soon as possible and before August 22nd, 2017.

If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the phone numbers or email addresses.

Appendix B. Explanatory Statement—Parent

MONASH University

EXPLANATORY STATEMENT
Year XX - XXXXXXXXXXXX Parent/Guardian

Project: Teachers who inspire gifted and highly able students - 8723

Chief Investigator: Dr. Leonie Kronborg
Department of Education
email: leonie.kronborg@monash.edu

Student: Claudia Cornejo
Phone : 0415220527
email: claudia.cornejoaraya@monash.edu

We are inviting your son or daughter to take part in this study. Please read this Explanatory Statement in full before making a decision. If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the phone numbers or email addresses listed above.

What does the research involve?

This study aims to identify inspiring secondary teachers for gifted and highly able students, to understand their interaction and characteristics, and to develop a theory grounded in the participants' experience.

Student participants will be expected to complete an online survey. A link will be sent to the student participants through their personal emails. In this short questionnaire participating students are invited to nominate up to three inspiring teacher who have had a significant impact on their academic life in Years 9-10 (definition of inspiration will be provided). Answering these documents will take approximately 20 minutes.

Why were you chosen for this research?

Your son or daughter has been invited to participate in this study because he or she is a current student in a program for gifted/highly able students in a Melbourne secondary selective school and in Year XX.

Consenting to participate in the project and withdrawing from the research

If you agree, please sign the consent form, providing the student name, year and personal email address, and return the form to school with your adolescent son or daughter as soon as possible and before XXXXXXXXXX, 2017. The consent form will be placed in the white boxes.

After we have received your consent, an email will be sent to your adolescent son/daughter. This email will be sent through Qualtrics platform, and it will contain a link to the explanatory statement, and a link to the online survey (after the introduction, in the first part of the online questionnaire they will be asked if they want to participate in this study).

Being in this study is voluntary and neither you nor your son/daughter is under any obligation to consent to participation. However, if you consent to your adolescent son/daughter to participate and then you or your child change your mind, then you will be able to withdraw from the study at any time during the process without being penalised or disadvantaged in any way.

Possible benefits and risks to participants

In this study your adolescent son/daughter will have the opportunity to recognise those teachers who have had an important influence in his/her academic life. Additionally, this research could have benefits for your family at a later stage. Understanding the interaction between inspiring teachers and gifted/highly able students this research will contribute to improve this relationship.

Participating in this study is not expected to create any discomfort for the student who participates. No risk or psychological stress is anticipated in the study beyond the normal experience of everyday life.

Confidentiality

The researchers mentioned above will know who has responded the online questionnaire but codes will be used to identify students' responses. All data will be analysed, reported and published in a form in which no individual or specific group can be identified.

Storage of data

Storage of the digital and non-digital data collected will adhere to the Monash University regulations and be kept on University premises in a secure password-protected computer for five years, and in a locked cabinet in the Chief Investigator's office. After this time all non-digital and digital information will be destroyed using an irreversible method that renders the data unreadable. The students' questionnaire will be conducted on Qualtrics, but this is viewed as a Monash secure system.

A thesis will be written by the PhD student researcher, but individual participants will not be identifiable in the document.

Use of data for other purposes

There is a possibility that the data will be used for academic publications and/or academic conferences and presentations. All data will be reported in a form in which no individual or specific group can be identified.

Results

If you would like to be informed of the aggregated research findings, please contact the researchers. The findings will be available as soon as it is analysed and written into a brief report for the school.

Complaints

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC):

Executive Officer
Monash University Human Research Ethics Committee (MUHREC)
Room 111, Chancellery Building E,
24 Sports Walk, Clayton Campus
Research Office
Monash University VIC 3800
Project number: 8723

Tel: +61 3 9905 2052   Email: muhrec@monash.edu   Fax: +61 3 9905 3831

Thank you. We would appreciate you participating in this study.

_____   _____

   Dr. Leonie Kronborg   **Claudia Cornejo**
   Chief Investigator   **Student Researcher**

Appendix C. Parent Consent Form

MONASH University

CONSENT FORM

Year XX - XXXXXXXXXX Parent/Guardian

Project: Teachers who inspire gifted and highly able students - 8723

Chief Investigator: Dr. Leonie Kronborg
Student Researcher: Claudia Cornejo

I understand I have been asked to consent for my adolescent child to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement, which I will keep for my records.

I understand that:	Yes	No
I am consenting to my son/daughter participating in this study, which will involve completion of an online questionnaire.	☐	☐
I am giving the researchers permission to contact my son/daughter through his/her personal email to send the link with the online form.	☐	☐
I am consenting that the researchers use the data for the above entitled research project and any publication/presentation made from the project.	☐	☐

Parent/Guardian Name: _____

Signature _____ Date _____

Name of student who you are giving permission for: _____

His/her personal email: _____

Teachers who inspire gifted and highly able students

Student Questionnaire

This study aims to identify inspiring secondary teachers in selective secondary school environments.

By completing and submitting this questionnaire you are giving your consent for your responses to be used in this research project.

After you read the Explanatory Statement in full, you are invited to complete this short survey that will take approximately 20 minutes.

Thanks for participating!

Please complete the following questions

Gender:

Age:

Year/Level

How many years have you participated in this selective school/program?

What are your main areas of interest and extra-curricular activities?

In what school subject(s) do you achieve your best results?

What do you consider as your main accomplishments/ achievements/ awards so far?

Considering the definition of "inspiration" described below, you are invited to nominate up to three secondary teachers who you consider have been inspiring, relevant or important in your learning, and to respond to 5 questions for each of your nominations.

Inspiration is defined as*: "the process that takes place when somebody sees or hears something that causes them to have exciting new ideas or makes them want to create something"*

Teacher 1:

◯ Teacher's name

◯ In what subject/ learning area did this teacher work with you?

◯ What year did this teacher teach you?

Considering your nomination, please respond to the questions below giving as much detail as possible:

What characteristics did you find interesting in this teacher? Why? (e.g. curiosity, their attitude, knowledge, communication skills, conscientiousness, interests, etc.)

How would you describe the learning environment during his/her classes? (what are/were relationships like? What are/were interactions like between the teacher and you; or with the teacher and the students? In what ways is/was the classroom environment affected?)

What teaching strategies or classroom activities were your favourite? Why?

How did your thoughts or feelings about a particular subject or learning, change due to your interaction with that teacher?

Have you felt inspired by something or inspired to do something from interacting with that teacher? How? (e.g. a person, thing or topic, spending time learning a particular topic, thinking about future plans or decisions, etc.)

I would like to add another nomination:

◯ Yes

◯ No

Finally, based on your experience: **What makes a teacher inspiring?**

Appendix E. Explanatory Statement—Students

MONASH University

Project: Teachers who inspire gifted and highly able students - 8723

Chief Investigator: Dr. Leonie Kronborg	**Student: Claudia Cornejo**
Department of Education	Phone : 0415220527
email: leonie.kronborg@monash.edu	email: claudia.cornejoaraya@monash.edu

You are invited to take part in this study. Please read this Explanatory Statement in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the phone numbers or email addresses listed above.

What does the research involve?

This study aims to identify inspiring secondary teachers for gifted and highly able students, to understand the interaction and its characteristics, and to develop a theory grounded in the participants' experience.

Student participants will be expected to complete an online form, which includes their acceptance to be part of this study, a demographic document, and the nomination questionnaire (a link will be sent to the student participants through their personal email). In this questionnaire participating students are invited to nominate up to three inspiring teachers who have had a significant impact on their academic life (definition of inspiration will be provided). Answering these documents will take approximately 20 minutes.

Why were you chosen for this research?

You are invited to participate in this study because you are current student in a program for gifted/highly able students in a Melbourne secondary school and in Years XXXX. Researchers have got your contact details through your parent/guardian.

Consenting to participate in the project and withdrawing from the research

After your parent or guardian has signed and returned the consent form to the researchers, the student researcher will send you an email to your personal email (through Qualtrics platform), which will contain a link to the explanatory statement, and a link to the online questionnaire (after the introduction, in the first part of the online questionnaire you will be asked if you want to participate in this study).
Being in this study is voluntary and you are under no obligation to agree to participate. However, if you agree to participate, you will be able to withdraw from the study at any time during the process without being penalised or disadvantaged in any way.

Possible benefits and risks to participants

In this study you will have a space to recognise those teachers who have had an important influence on your academic life. Additionally, this research could have benefits for you at a later stage. Understanding the interaction between inspiring teachers and gifted/highly able students this research will contribute to improve this relationship. Participating in this study is not expected to create any discomfort for you. No risk or psychological stress is anticipated in the study beyond the normal experience of everyday life.

Confidentiality

The researchers mentioned above will know who has responded to the online questionnaire but codes will be used to identify your responses. All data will be analysed, reported and published in a form in which no individual or specific group can be identified.

Storage of data

Storage of the digital and non-digital data collected will adhere to the University regulations and be kept on University premises in a secure password-protected computer for five years, and in a locked cabinet in the Chief Investigator's office. After this time all non-digital and digital information will be destroyed using an irreversible method that renders the data unreadable. The students' questionnaire will be conducted on Qualtrics, but this is viewed as a Monash secure system.

A thesis will be written by the PhD student researcher, but individual participants will not be identifiable in such document.

Use of data for other purposes

There is a possibility that the data will be used for academic publications and/or academic conferences and presentations. All data will be reported in a form in which no individual or specific group can be identified.

Results

If you would like to be informed of the aggregated research findings, please contact the researchers. The findings will be available as soon as it is analysed and written into a brief report for the school.

Complaints

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC):

Executive Officer
Monash University Human Research Ethics Committee (MUHREC)
Room 111, Chancellery Building E,
24 Sports Walk, Clayton Campus
Research Office
Monash University VIC 3800
Project number: 8723

Tel: +61 3 9905 2052   Email: muhrec@monash.edu   Fax: +61 3 9905 3831

Thank you,

_____   _____

   Dr. Leonie Kronborg   **Claudia Cornejo**
   Chief Investigator   **Student Researcher**

Appendix F. Explanatory Statement—Teachers

MONASH University

EXPLANATORY STATEMENT

Secondary Teachers

Project: Teachers who inspire gifted and highly able students - 8723

Chief Investigator: Dr. Leonie Kronborg	**Student Researcher: Claudia Cornejo**
Department of Education	Phone : 0415220527
email: leonie.kronborg@monash.edu	email: claudia.cornejoaraya@monash.edu

You are invited to take part in this study. Please read this Explanatory Statement in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, you are encouraged to contact the researchers via the phone numbers or email addresses listed above.

What does the research involve?

This study aims to identify inspiring secondary teachers for gifted and highly able students, to understand the interaction and its characteristics, and to develop a comprehensive theory grounded in the participants' experience. Teacher participants will be expected to complete a demographic document (it will take less than 10 minutes), an in depth interview (60 minutes, audio-recorded), and a class observation (it does not include recordings of any type just researcher notes and an observation protocol) of the teacher chosen to be part of the study. Interview and class observation will be conducted in a mutually agreed space and time.

The study will result in a theory to inform the particular interaction mentioned above.

Why were you chosen for this research?

You are invited to participate in this study because you were nominated by your students as an inspiring teacher.

Consenting to participate in the project and withdrawing from the research

Being in this study is voluntary and you are under no obligation to consent to participation. However, if you agree to participate, you will be able to withdraw from the study at any time during the process without being penalised or disadvantaged in any way. Please complete the consent form and email it back to me (or hand to me in person) if you agree to be part on this study.

Possible benefits and risks to participants

In this study you will have a space to share your experiences, strategies and opinions about your involvement in the field of gifted education, where you are considered an inspiring teacher. Additionally, this research could have benefits for you at a later stage. Understanding what it is that makes you considered to be an inspiring teacher for gifted/highly able students in this research will contribute to improve your relationship with students.

Participating in this study is not expected to create any discomfort for you. No risk or psychological stress is anticipated in the study beyond the normal experience of everyday life.

Confidentiality

Codes will be used to identify teachers' responses. All data will be analysed, reported and published in a form in which no individual or specific group can be identified. The interviews will be transcribed by professionals therefore your answers will be safe.

Storage of data

Storage of the digital and non-digital data collected will adhere to the University regulations and be kept on University premises in a secure password-protected computer for five years, and in a locked cabinet in the Chief Investigator's office. After this time all non-digital and digital information will be destroyed using an irreversible method that renders the data unreadable.

A thesis will be written by the PhD student researcher but individual participants will not be identifiable in the document.

Use of data for other purposes

There is a possibility that the data will be used for academic publications and/or academic conferences and presentations. All data will be reported in a form in which no individual or specific group can be identified.

Results

If you would like to be informed of the aggregated research findings, please contact the researchers. The findings will be available as soon as it is analysed and written into a brief report for the organisation.

Complaints

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC):

Executive Officer
Monash University Human Research Ethics Committee (MUHREC)
Room 111, Chancellery Building E,
24 Sports Walk, Clayton Campus
Research Office
Monash University VIC 3800
Project number: 8723

Tel: +61 3 9905 2052   Email: muhrec@monash.edu   Fax: +61 3 9905 3831

Thank you,

_____   _____

Dr. Leonie Kronborg   **Claudia Cornejo**
Chief Investigator   **Student Investigator**

Appendix G. Teacher Consent Form

MONASH University

CONSENT FORM

Secondary Teachers

Project: Teachers who inspire gifted and highly able students - 8723

Chief Investigator: Dr. Leonie Kronborg
Student Researcher: Claudia Cornejo

I have been asked to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement, which I will keep for my records.

I understand that:	Yes	No
I am consenting to participate in this study, which will involve completion of a demographic document, interview and class observation.	☐	☐
The researcher can audio record the interview and use the transcripts in presenting her research findings.	☐	☐
I am consenting that the researcher use the data for the above entitled research project and any publication/presentation made from the project.	☐	☐

Name of Participant _____

Participant Signature _____ **Date** _____

Appendix H. Demographic questionnaire—Teachers

MONASH University

Teachers who inspire gifted and highly able students
Teacher Demographic Questionnaire

Gender: _____

Age group:

20-30 ☐   **31-40** ☐   **41-50** ☐   **51-60** ☐   **61+** ☐

Major/s at University: _____

Highest Degree Obtained: _____ University: _____

Principal Occupation (Role as an educator): _____

Subject/Year level taught currently at school _____   _____

No. of years of experience:
     -Teaching in general: _____
     -Teaching gifted/highly able students as a cohort: _____
     - Teaching gifted/highly able students as a cluster group _____
     -Teaching at the current High School: _____

Gifted Education training: Year
     -Pre-service: _____   _____
     -In-service: _____   _____
     -Master specialisation: _____   _____
     -Master in Gifted Education: _____   _____
     -Dr/PhD specialisation: _____   _____
     -Dr/PhD in Gifted Education:_____   _____

State/National/International Gifted Education Conferences attended (number):
   State_____ National _____ International_____

Professional Development attended in gifted education (Identify the program):
_____

Appendix I. Initial Interview Protocol

ID: _____

MONASH University

TEACHERS - Interview Protocol
How do you describe yourself as a teacher?
Why do you think your SEAL students nominated you as an inspiring teacher?
How do you describe your relationship with your gifted and highly able students?
How do you describe your gifted and highly able students? What are the implications of being their teacher?
What are the similarities and differences between you and your gifted and highly able students? Are there differences amongst your gifted students?
How do you describe your experience of being a teacher for the gifted? What do you think is the most challenging part of being their teacher?
How do you prepare a class for these students? What strategies and practices do you use? Do you have any special considerations? Is there a lesson or topic that you consider you teach best? Why?
How do you motivate SEAL students? How do you challenge them inside and outside the classroom?
How do you address their special needs? (cognitive, social, affective)
What do you think are the roles for schools and parents in regard to gifted education?
What is your opinion about teacher and professional development? How would you describe teacher support?
Could you mention highlighted moments in your career with these SEAL students?
What else would you like to share or discuss in relation to these questions?

Appendix J. Observational Protocol

ID: _____

Name of School: _____ Class/Year: _____

Teacher: _____ Subject: _____

Lesson: _____ Date/Time: _____

Duration of Lesson: _____

No Students: _____/___ No Teachers: _____/___

Classroom Map (space to draw the classroom distribution and main features)

Class structure (Chronological events)

Activities (strategies/practices)

Interactions (teacher- student, student-student, student-teacher)

Quotes of individuals – students and teachers (important or relevant)

Abilities/skills promoted

Assignment

Other important situations/features

Appendix K. Memo Example

1/10/2017 1:03 PM

When students talk about the changes in their thoughts about a particular subject due to the interaction with a particular teacher, many students (see the list) have mentioned the idea of seeing "new things" (find a better word to describe this)... Opportunities? Options? Possibilities? Transformation?

Seems like these teachers allow them to see through new lenses. It could be something really new that they did not know before, or something that they knew, but now seems different (more interesting, attractive). This also has influences in the future... through their decisions (short, medium, or long term)... some of them (see the list) mention the possibility to considerer a career in this particular area, or VCE, or choose a particular subject next year. Why this subject is more interesting/fun now? What happen in that class?... Ask about this to the teacher (Interviews)... and pay attention in the classroom obs.

I've identified changes... for instance "I did not like it, but I like it now", or "I liked it before, but now I really really like it", "it wasn't an interesting subject, but now I don't want to miss the class" ... those changes allow the students to see a new option of learning –they value this- then this is an option where the teacher opens the world to new possibilities?. I need to check this because it sounds really interesting.

Is it connected with the idea of "big picture"?

Appendix L. Methodological Journal Example

About first interview ✕

September 2017

I was quite nervous conducting the first interview. The first few minutes I strictly followed my script.
I probably missed a couple of intersting points [I tryed to cover these topics later on].
Teacher participant was engaging and excited answering questions and talking with me. I need to practice more how to be flexible with my guidelines.
Update my interview protocol for the next interview (I got new ideas!!). Great insights from this interview.
I also need to practice how to finish the interview (not enough saying that "this is the last question" because it could not be the last one!).
Remember to ask teachers for member checking and contac/email them in case of more questions.
Is taking notes distracting for participants? Ask them if this is ok for them before the interview starts.

Not taking is useful to remember questions or highligh points for later analysys.

Appendix M. Full List of Teachers' Areas of Knowledge

Number of teachers	Areas of knowledge
14	Mathematics
14	English
7	History
7	Biology
3	German
3	French
2	Legal studies
2	Music
1	Economics
1	Electronic Technology
1	Mechanics/Robotic
1	ITP
1	Drama
1	Art
1	Physics
1	Philosophy
1	Chemist
1	Health and Physical Education
1	Fashion and Textile
1	Indonesian
1	Extension
1	Latin

Appendix N. Concept Map—Students' Responses

Appendix O. Member Checking

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Students

Wanting to learn
Loving learning
Understanding things quickly
Quicker pace
Well rounded
Doing extra curricular activities
Being happy kids
Enjoying life

Treating them more maturely

Learning Environment
'Fun & relaxed place to be'

Positive reputation

Wanting them to have a (+) experience at school

Students needs

Addressing stress/pressure
*Focusing on learning
*Reducing the importance of marks
*Providing feedback from mistakes
*Learning from mistakes

'Is easy to teach them'
'Feeling lucky teaching them'

Like-minded peers

Building positive relationships

Beyond the content

Showing them a new world

Teaching / Learning

'Working from the beginning to the end'

Feedback

Strategies

Mistakes
Finding satisfaction
'Working out their brains'
Help is available
Empathy
Promoting independent reasoning

*Motivation
*Engagement
*Challenge

As a teacher

Teacher
Other roles

Knowledge
Experience

'Teacher voice'
Easy going
Love/Passion
Flexible

Role

Allowed to be a different kind of teacher

Motto
*"Fix it and move on"
*"Lear and have fun is compulsory"

Teaching
*Feeling confident/ relaxed to teach these students
*Putting effort
*Connecting with future
*Witnessing learning

Becoming a teaching

(+) exp. as a student
Past teachers
PD
Working with others

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Metacognition

Role of PD
'Opportunity to be exposed to new ideas'

Teaching strategies
- Teaching beyond the context
- Teaching skills for the future
- Rewarding effort*
- Tangents
- 'Big picture'
- Proofreading*
- Challenge

Teaching
*Style: As a reaction against things he did not like it
*Teacher character"
*"Selling the subject"

Setting **success** criteria differently

Feedback

* Trial/Error
* Projecting love/passion
* Favourite part:
  - *'Understanding moments'*
  - *'Learning how to deal with anxiety'*

Students
- Different
- Inquisitive
- High effort
- Anxiety/Pressure
- Strong cohort
- Capable of a lot

Effort
(+) Fdb loop

Feeling comfortable teaching these students

Feedback

As a teacher
- Curious
- Modelling curiosity
- Strict
- Flexible
- Considering students' interests

Relationship with students
- Knowing them
- Empathy
- Honesty
- Talking with them
- Good relationship w/ high effort
- Not personal relationship
- Having fun*
- Mutual appreciation
- Connecting through the subject

Expectations
Behave like adults

School

Students

- Everyone is different
- Good sense of humour
- Polite
- Wanting to learn
- Warm/ Outgoing/ Standoffish*
- Respectful
- Smart
- Appreciative

"Is easy to teach them"

Developing skills
*Higher order thinking abilities
*Explaining "Why'
*Modelling skills
(Comfort Zone)

Feedback
*'Reading the class'
*Surveys
*'Heads down'

Being good models for each other

Relationship

Feeling proud of them

Learning environment
- Collaborative
- Receptive
- Discussing
- Supportive
- Welcoming

Strategies
- Tangents
- Challenge – point of need
- Ppt as guide
- Open-ended teaching style
- U shape
- 'Big picture' Real life*

As a teacher
- Setting the right feeling
- Passionate
- Connecting his roles
- Outgoing
- Approachable
- Wanting to be the best teacher he can be
- 'Learning journey'
- Knowing his students
- Understanding them*
- Humour
- Well organised
- Flexible
- Love teaching
- Supportive
- Honesty
- Treating students as adults
- Motivation
- Considering students interests & characteristics
- Good at 'reading' the class
- Empathy
- Putting effort

Taking care of himself
*Setting boundaries
*Being well organised
*Having real breaks

Meaning of teaching & learning

T: 'Facilitating learning'

L: 'Growth' & 'Journey'

Becoming a teacher
*Models (+) & (-)
*Enjoying his school time
PD
*Being critical with teaching degree

Becoming a teacher
*Enjoy explaining things
*Falling in love with the subject

Preparing herself for teaching
*Knowing the content very well
*Preparing ahead
*Reading books/articles
*Keeping up to date

School Environment
*'Wake up effect'
*Like-minded peers
*Safe place
*Caring place
*Good Ed. Opportunities

As a teacher
Hard working
Self-critical
Being up to date
Very organised
Loving her subject/Job*
Self-sufficient
Valuing students' joy
Enjoying her classes
Showing interest
Humour
Sharing stories & anecdotes

Learning Environment
Open
Questions
Discussion

Teaching beyond the content
*Note taking
*Cooperation/ Share
*Group work
*Social skills
*Metacognitive skills

Strategies
Worksheets
Ppt
Group discussions*
Problems
Research
Valuing students ideas
Peer assessment*
Mistakes
Knowing her students
Questions

Students
Driven
Out of their Comfort Zone
Incredibly polite
Insightful
Talented
Fun
Highly motivated
Hardworking
Perceptive
Well-behaved
Feeling privileged & lucky to teach them

Relationship
*Open
*Friendly
*Respectful (both ways)
*'Being there for them'
*Not judgemental

Expectations
About her students:
Ambition + high ability

Students about her:
*'Teaching well & what they need
*Marking asap
*Giving fdb
*Working hard

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Feedback

TEACHING STRATEGIES

- Having different activities for gifted/ non gifted
- Using tangents
- Having relaxed and hard work time
- Valuing independent work
- Adapting content
- Ppt as a lesson plan

Engagement

Humour

(+) Fdb

Teaching beyond the content

- Metacognition
- Skills
- Behaviour

Students

Working together

Cycle of expectations/ hard work

Encouraging their future

Trying to remove some pressure

Being positive about them

Taking care of his students

Learning environment

TEACHER

- Knowing his students
- Providing constructive fdb
- Hard working
- Wanting all students to be engaged
- Feeling influenced by his personality
- Enjoying his classes
- Empathising with his students
- Wanting all students to feel special
- Knowing subject well
- Putting effort into his subject
- Opening up new possibilities
- Expanding their views

Taking care of himself

Time management

Learning to be a teacher

-Previous experiences
-Being a student

Evolving as a teacher

Area of Knowledge SUBJECT

New angles
New lenses
Alternative views

<u>Learning environment</u>
- Fun
- Focused
- Influenced by IB or VCE
- Safe place

Previous experience

Becoming a teacher

Teaching → *'Helping the students to improve'*

<u>His Students</u>
- So respectful
- Under pressure/ stress
- Wanting to
  - -be smarter
  - -learn more
  - -learn how to improve

*is ad advantage to teach these students

<u>Strategies</u>
- Developing methods to increase participation
- Promoting self-challenge and challenge for everyone
- Promoting high skills
- Using mistakes to teach
- Collaborative strategies
- Humour
- Sharing personal stories
- Teaching the best of his ability
- Using real examples
- Teaching beyond the class
- Empowering students through the subject

Teaching beyond the content

<u>Being a Teacher</u>
- Passion
- Knowledge
- Main aim: Learning
- Hard work
- Well prepared
- Empathetic
- Being flexible
- (+) Relationships
- More than a teacher
- Teaching at a high level
- Considering school charact.
- Critical

*Taking care of himself

Himself
Students
Being supportive
Having other interests
Connecting with real world
Feeling fortunate

'Earning respect'

Evolving as a teacher

time

TEACHING

Personal charact.
- As a performance
- As a giving activity

Doing many things outside teaching

Taking care of himself

'Living the moment'

Contagious

'Best teachers'
passionate

Knowledgeable
Personable
Bright
Enthusiastic

Relationship with students
-Having students on-task
-Not treating them as kids
-Valuing his students
-Knowing about them (overload/pressure)
-keeping contact with some former students

Challenging his students
Knowing the content very well
Being passionate

BEING A TEACHER

'Lone wolf'
Being chaotic
Informal
Inspire
Aiming to
Deeper engagement

Students
Having high standards
His classes
himself

Using humour
Showing new options
Changing the meaning of the subject
Real meaning of maths

Teaching beyond the content

-critical thinking
-perfectionism as not necessary
-metacognition

Using stories* to engage current students

TEACHING STRATEGIES

Using creative examples
To engage his them

Doing proofs
Promoting c.thinking

Making mistakes
'just errors'

Teaching explicitly
Teaching the best way of doing things

feedback

Evolving as a teacher

Feedback

BEING A TEACHER

- Wanting to be inspiring
- Knowing her students
- Motivating them to do different things
- Being passionate
- Wanting students to be interested/ engaged
- Wanting them to enjoy school
- Treating them as adults
- Being genuine with them
- Constantly evolving
- Expectations
  - Students
  - Herself

Teaching beyond the content

- Skills
- Mistakes
  - -keep trying
  - -getting things wrong to learn

Organising/ preparing classes

Strategies

1. Sharing personal stories
2. Empathising with students
3. Strategies to motivate & engage
   i. To potentiate knowledge (voice, emotions)
   ii. Modelling behaviour
4. Teaching strategies
   i. interactive act.
   ii. Groups
   iii. Class discussion
5. Promoting independence

Meaning of teaching → *'as a performance / acting to engage & motivate'*

Feelings about teaching

- Enjoy every class
- Less stress than previous job
- Happy about teaching
- Future activity

Her Students

- Some of them are under pressure/ stress
  - From parents
  - Taking care of them
  - Little pressure as possible
- Easy to teach them
  - Well behaved
  - Wanting to learn
  - lovely

School environment

Learning to be a teacher

- Personal history (being a mother, family)
- Work experience
- Changing path
- Being a student teacher
- Discussing with colleagues

Working with others

- Being helpful with each other
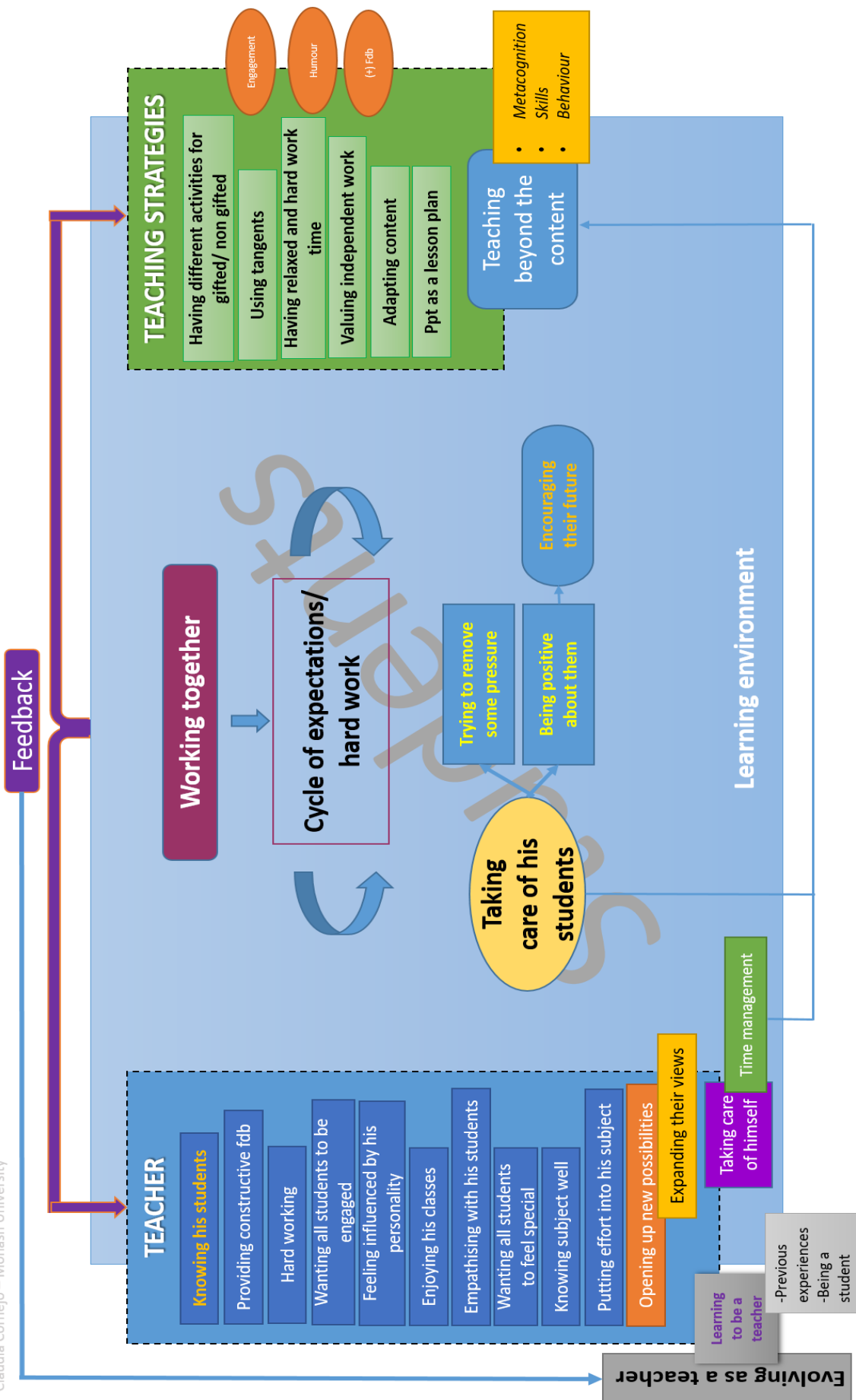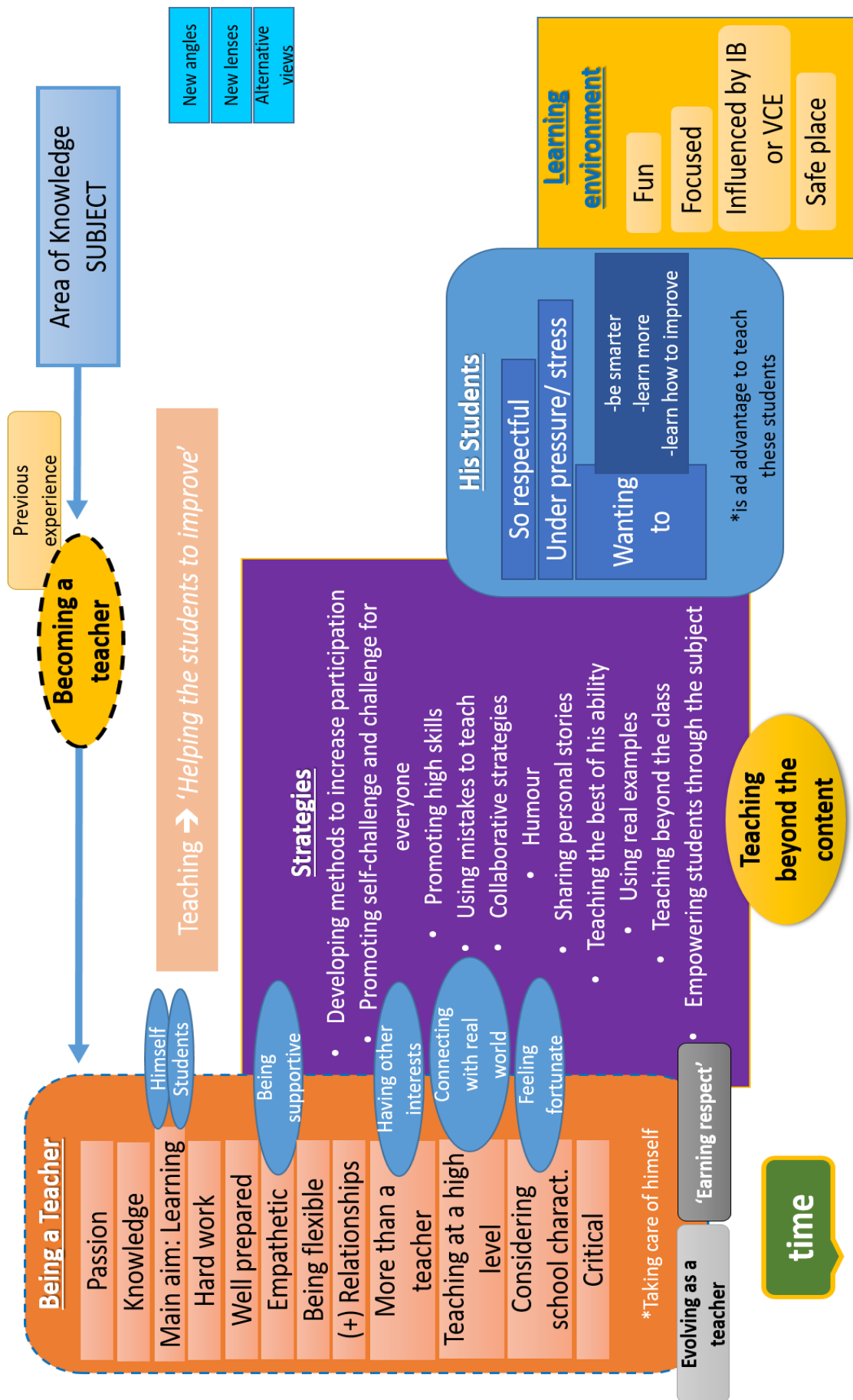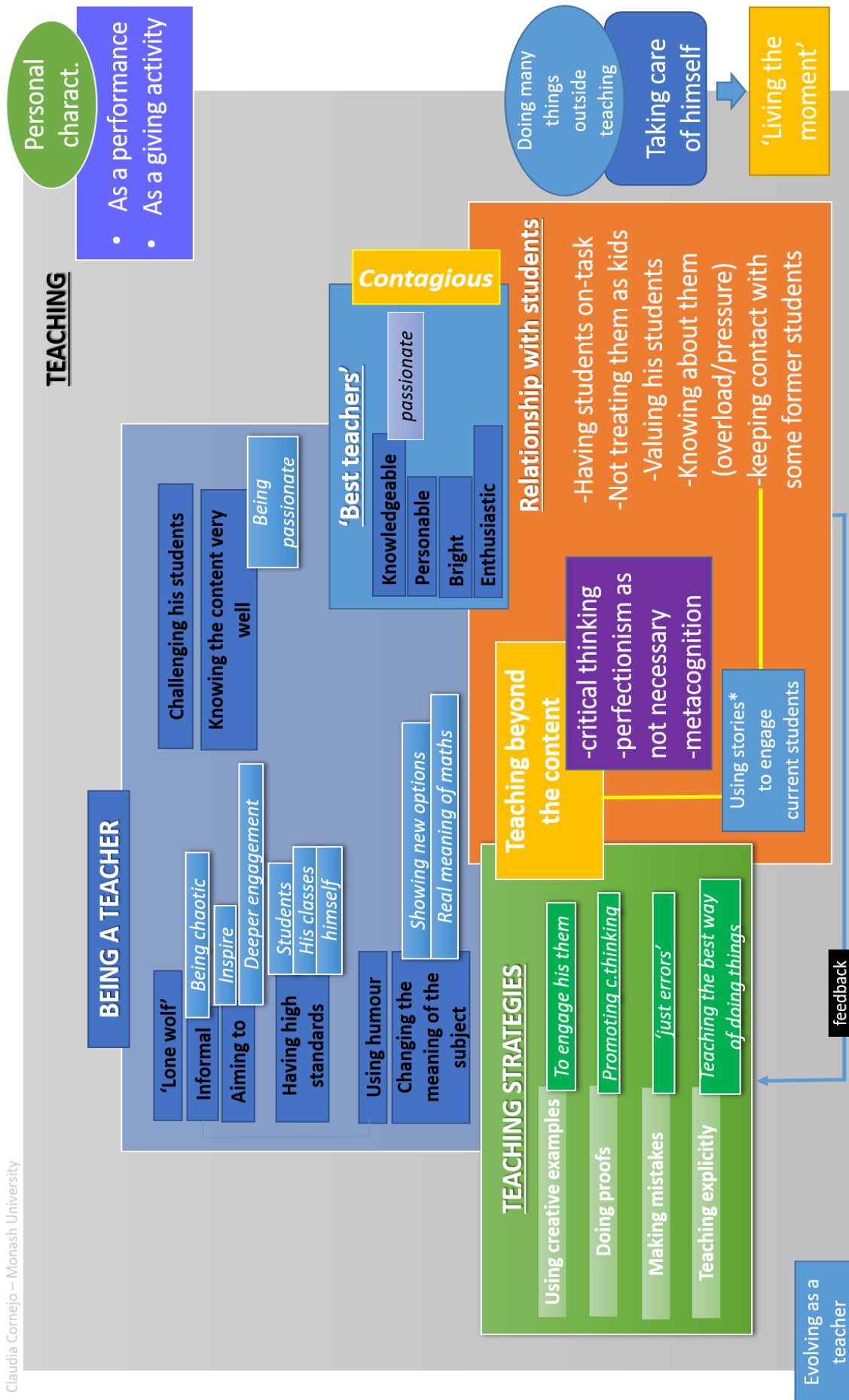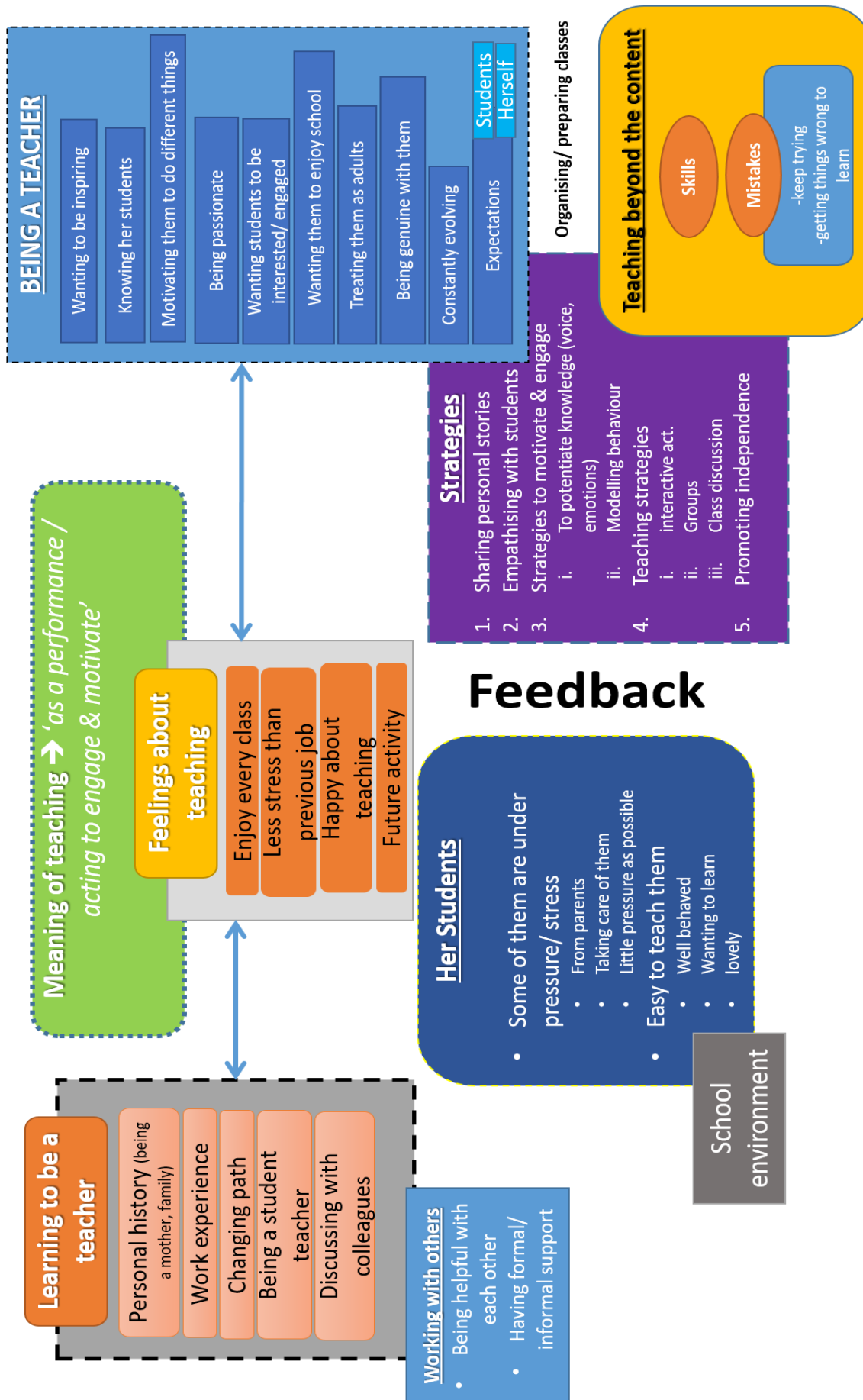- Having formal/ informal support

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Appendix P. Theoretical Diagrams