School of Education

Student wellbeing, resilience and moral identity: Does the school climate have an impact?

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DECLARATION

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university. To the best of my knowledge and belief, this thesis contains no material previously published by any person except where due acknowledgement has been made.

Signature:

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Date: June 2016

ABSTRACT

The rising statistics of reported adolescent mental health issues and the recognition of a school climate's influential role in adolescent health and development provided the impetus for the research reported in this thesis. Given this backdrop, the study aimed, first, to examine the relationship between students' perceptions of their school climate and self-reports of wellbeing, resilience and moral identity and second, to examine the interrelationships between these three outcome variables.

The sample involved 618 Year 11 students from 15 South Australian independent schools. Data was collected using two questionnaires: one to assess students' perceptions of the six school climate dimensions; and another to assess students' self-reports of wellbeing, resilience and moral identity.

As a first step, the data was analysed to establish the reliability and validity of the two questionnaires in terms of the factor structure, internal consistency, reliability, and ability to differentiate between schools. The results provided evidence to support the validity of the surveys when used with upper secondary students in South Australian independent schools.

To assess the research model and test the hypotheses, structural equation modelling (SEM) using AMOS 22 was used. Results found that the hypothesised model provided a good fit to the data (CFI=0.94) and had sound model fit.

Results from the testing of the hypothesised relationships found that 12 of the 18 possible relationships were statistically significant ($p<0.001$) and that all of the statistically significant relationships were positive in direction. Specifically, the results indicated that five of the six school climate dimensions were positively related to students' sense of resilience: teacher support (β=0.13, $p<0.05$); peer connectedness (β=0.15, $p<0.001$); sense of belonging or school connectedness (β=0.18, $p<0.001$); clarity of the rules (β=0.14, $p<0.05$); and mechanisms for reporting and seeking help (β=0.14, $p<0.05$). Four of the six school climate dimensions were positively associated to students' sense of moral identity: rule clarity (β=0.12, $p<0.05$); peer connectedness (β=0.30, $p<0.001$); affirming diversity (β=0.21, $p<0.001$); and reporting and seeking help (β=0.26, $p<0.001$). Finally, one

school climate dimension (school connectedness) was found to directly influence students' sense of wellbeing (β=0.42, p<0.001). Overall, the hypothesised model explained 33% of the variance in students' sense of resilience, 44% of the variance in students' sense of moral identity, and 56% of the variance in students' sense of wellbeing.

The results from examining the hypothesised interrelationships between the outcomes indicated that two of the three hypothesised relationships were statistically significant: students' sense of resilience was positively associated with both their sense of wellbeing (β=0.43, p<0.001) and moral identity (β=0.15, p<0.01). Further, resilience was found to mediate the influences between school climate dimensions and both student wellbeing (in terms of school connectedness, reporting and seeking help, rule clarity, and peer connectedness) and moral identity (in terms of teacher, support, school connectedness, rule clarity, reporting and seeking help and peer connectedness).

The results of this study present valuable insights into the significant role that schools can play in the holistic development of students. It offers new insights into school climate dimensions and, specifically, into the impact that these can have on moral identity formation. It is the first study in South Australian independent schools that explores the impact of school climate on student outcomes. In essence, the results of this study have the potential to inform and guide educators in their leadership and management, offering an insight into what specific school climate dimensions empower students to be resilient, moral, healthy and high functioning. As such, the study makes a distinct contribution to the sparse literature related to school climate and its influence on students' wellbeing, resilience and moral identity.

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CHAPTER 1

INTRODUCTION AND RATIONALE

1.1   Introduction

The rising statistics of adolescent mental health issues in Australia are well documented. For example, in the Mission Australia Youth Survey 2014 report, which involved a sample size of 13,600 young people aged 15 to 19 years, there was a 5.4% increase in mental health issues over the last three years, which was identified as a key issue facing the nation (Mission Australia, 2014). Additionally, the Australian Bureau of Statistics (ABS) report, released in 2008, identified that young people carried the greatest burden of mental illness (National Advisory Council of Mental Health, 2009) because more than 75% of all severe mental illnesses occur prior to the age of 25 (Kids Help Line, 2012).

The reasons for this rise in adolescent mental health issues are not conclusive; however, the results of past research have provided key insights. The Mission Australia Youth Survey revealed that for over 40% of Australian young people, coping with stress, school and study problems caused them great concern and that 23% of young people identified drugs and alcohol to be an issue amongst their peers (Mission Australia, 2014). Additionally, one in five (20%) young people indicated that they were either extremely concerned or very concerned about family conflict (Mission Australia, 2014). In line with these findings, Lucas, Nicholson and Erbas (2013) found that demographic and contextual factors of family structures were currently a predominant determinant of a young person's mental health. The impetus for this study comes from the interest in the rising statistics of reported adolescent mental health issues, and the role that education potentially has in addressing this increase.

The role of education in addressing adolescent mental health issues continues to evolve, with many countries now including in their national curriculum or policy statements a commitment to 'educating the whole child' (see for example, Sweden's National Agency for Education, 2006; Irelands' National Council for Curriculum and

Assessment, 2007; England's School Curriculum, 2014 and the Australian Curriculum, 2014). Whilst there has been some research conducted on school climate and its impact on students' mental health and psychosocial wellbeing (Cross et al., 2011; Hall, 2010; Karvonen, Vikat, & Rimpela, 2005; Nabuzoka, Renning, & Handegard, 2009), this study extends past studies by examining dimensions considered to be important to an inclusive school climate, and their impact on students' wellbeing, resilience and moral identity. Therefore, this study examines the relationship between school climate and three areas of student development — wellbeing, resilience and moral identity — and the interrelationships between the three outcome variables.

This chapter provides the rationale to the study (Section 1.2), hypothesised model of the study (Section 1.3), an outline of the research objectives (Section 1.4), an outline of the potential significance of the study (Section 1.5) and an overview of the thesis (Section 1.6).

1.2   Rationale for the study

In recent times, there has been a rise in reported cases of adolescent mental health issues. The Australian Bureau of Statistics 2009 report revealed that over one quarter (26%) of young Australians experience a mental illness every year. In essence, "concern about mental health among young people is growing" (Australian Bureau of Statistics, 2009, p. 103). For example, drawing on a representative sample of Australians aged between 16 and 85 years of age, the data found a 4.5% increase in identified mental health issues from 2011 (10.7%) to 2013 (15.2%). In fact, some estimates have suggested that depression is ten times more common today than 50 years ago (Wickarante, Weissman, Leaf, & Holford, 1989). In addition, The World Bank and Harvard School of Public Health (1996) reported that the most prevalent mental disorders experienced by Australians were depression and anxiety. Given these statistics, it is not surprising that depression is predicted to be one of the world's largest health problems by 2020. Currently, the highest prevalence of mental illness in any age bracket is in Australian youth aged 18 to 24 years. Furthermore, the onset of this disease, once aligned with adulthood, is now experienced in mid-to-late adolescence (Lewinsohn, Rhode, Seeley, & Fischer, 1993; Weissman, 1987). It

is not unexpected, then, to discover that there has been significant growth in the attention given to and research on the wellbeing of nations, communities, schools and individuals (Awartani, Whitman, & Gordon, 2008).

From an educational perspective, foundations, national curricula and initiatives have sought to identify and address the current concerns of young peoples' wellbeing. For example, the Universal Education Foundation (UEF) was founded in 2004, with the vision "Education by all for the wellbeing of children; to inspire people to listen more to children and young people and to take more initiatives to implement change for their wellbeing" (www.efc.be, 2004, p. 1). The UEF has worked in partnership with public and private sector organisations worldwide to develop a global advocacy movement aimed at answering the question "How can we create learning environments that nurture the wellbeing of children and young people?" This organisation reviewed published research and a multitude of international charters to identify common key findings. One of the most significant commonalities was that when students learn in positive social and emotional environments, they report more positive wellbeing, exhibit fewer risk behaviours and have higher academic performance (Blum, McNeely, & Rinehart, 2002; Bonny, Britto, Kolstermann, Hornung, & Slap, 2000; Havlinova & Schneidrova, 1995; Nutbeam, Smith, Moore, & Bauman, 1993).

One of the major changes in the field of research on wellbeing has been the shift from a deficit perspective towards a focus on wellbeing, while continuing to recognise the significant impact of the community in which young people live (Awartani, Whitman, & Gordon, 2008). Coupled with this shift in perspective is the rising recognition that identity formation must become an important focus in education (Kaplan & Flum, 2012). In light of this information, the role of educational institutions becomes significant, as students spend up to thirteen developmental years in school.

The power of a child's formal educational community should not be underestimated. As Taylor (1989) suggests, the community empowers an individual and his or her identity is, for the most part, defined through the dialogue with, and sometimes against, the significant others in their lives. Individuals learn about themselves

through their on-going exchanges within the community that they are part of, rather than by 'looking at themselves' (Ricoeur, 1992). Through these on-going interactions with the standards and values that are supported by a community, individuals develop positions and stands on matters of importance that define their identity (Ricoeur, 1992). In essence, individuals discover their moral identity through complex interactions, of which the social domain is an important one (Damon, 1999; Hart, Atkins, & Ford, 1999).

Schools can also be an important setting to promote resilience. A school can, potentially, provide a safe environment that actively buffers against adversity through supportive peers, positive teacher influences, and opportunities for success (Glover, Burns, Butler, & Patton, 1998; Masten & Motti-Stefanidi, 2009; Patton, Glover, Bond, Butler, Di Pietro & Bowes, 2000). According to Masten, Herbers, Cutuli and Lafavor (2008), when schools are reported to be an effective and positive experience for students, they in turn have been implicated as strengths or protective influences on resilience (Condly, 2006; Luthar, 2006; Rutter & Maughan, 2002; Wang & Gordon, 1994). In essence, schools play a significant protective and nurturing role in the development of a student's fundamental adaptive system, by offering a supportive, orderly, well-structured environment, where positive relationships are fostered and expectations are high (Masten & Motti-Stefanidi, 2009). In this environment, students can learn about themselves, their skills, capacities, motivations and beliefs, contextualised in a positive web of support.

In light of this, it is not surprising that the UEF found that the expectations placed on schools are changing. Whilst, in the past, the holistic development of a child may have been considered to be a parent's or family's role, there is now a growing expectation that schools share this responsibility (Awartani, Whitman, & Gordon, 2008). Examples of this growing expectation are evident in recent curriculum documents developed in a number of countries. In Sweden, the compulsory curriculum document for education stresses that the curriculum should aim to "stimulate each pupil towards self-development and personal growth" (Swedish National Agency for Education, 2006, p. 7). Similarly, in Ireland, the curriculum emphasises key competences and a holistic approach to child development (National Council for Curriculum and Assessment, 2007). The School Curriculum in England

(2014) states that one of the overarching aims of the curriculum is to promote the spiritual, moral, cultural, mental and physical development of pupils at the school and of society (Department for Education, 2014). Of relevance to this study, which took place in Australia, is the Melbourne Declaration of Schooling (2008), which the new 2014 Australian Curriculum (Australian Government, 2014, p. 9) is developed from, stating:

> Education should enable students to have a sense of self-worth, self-awareness and personal identity that enables them to manage their emotional, mental, spiritual and physical wellbeing, develop personal values and attributes such as honesty, resilience, empathy and respect for others and act with moral and ethical integrity.

A natural progression from this heightened emphasis on the role of schools in educating the whole child is the growing interest and research into positive psychology and how schools can influence students' wellbeing through their growth as positive, hopeful, resilient individuals who can flourish. Over the last five years, more schools have implemented 'wellbeing' and 'positive psychology' programs, or sought to assess their students' current mental health status in order to provide a holistic education that meets the needs of their young people.

Relevant to my study is whether students' perceptions of the school climate influence their self-reports of wellbeing, resilience and moral identity. Firstly, gathering data from students is intentional, as it makes sense to seek feedback from the individuals, who are the focus of this research. Their perceptions of their school climate and themselves offer a unique insight into this field of research. Importantly, this study builds on past research and offers new insights into how school climate dimensions interact simultaneously and influence student wellbeing, resilience and moral identity. Further, it contributes to the growing body of literature on the interrelationships between wellbeing, resilience and moral identity.

1.3   Conceptual framework

Past research has identified that the school climate can influence: student wellbeing (Rich & Schachter, 2012; Virtanen, Kiviimaki, Luopa, Vahtera, Elovainio, Jokela & Pietikainen, 2009); resilience (Glover, Burns, Butler, & Patton, 1998; Masten & Motti-Stefanidi, 2009; Patton et al., 2000); moral identity (Cote & Levine, 2002; Kroger, 2007; Penuel & Wertsch, 1995; Sfard & Prusak, 2009; Tappan, 2006); and the interrelationships of student wellbeing, resilience and moral identity (Masten, Herbers, Cutuli, & Lafavor, 2008). Despite this past research, only limited research evidence exists to help to identify the effect of specific school climate dimensions on these three outcomes. The research model developed in this study hypothesises that six dimensions related to the school climate (teacher support, school connectedness, rule clarity, reporting and seeking help, affirming diversity and peer connectedness) are related to students' wellbeing, moral identity and resilience (Figure 1.1). Additionally, this study examines the interrelationships between student wellbeing, moral identity and resilience, hypothesising that: students' sense of resilience is related to self-reports of wellbeing and moral identity; and that students' sense of moral identity is related to their wellbeing.
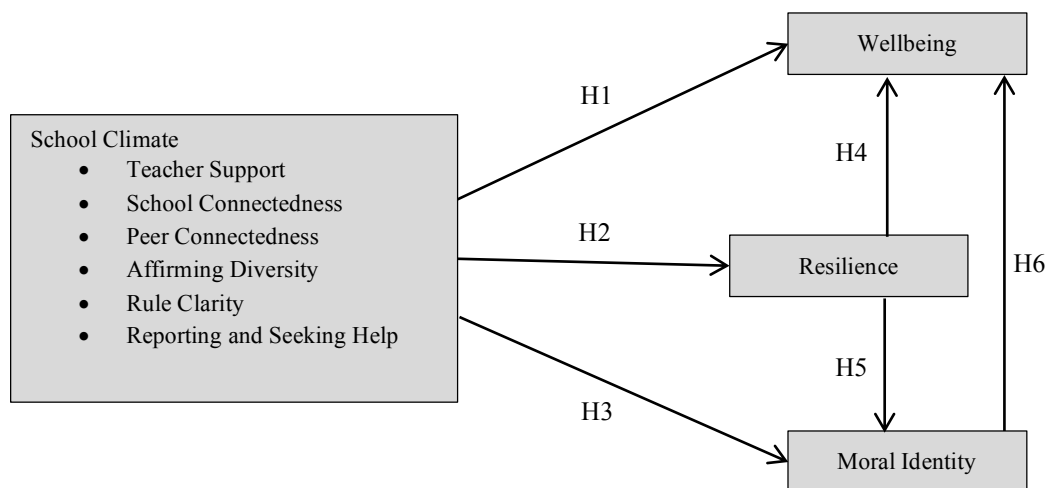
Figure 1.1 Hypothesised structural model of the study

This section provides operational definitions for each of the variables included in the model, as well as a brief introduction to the hypothesised model which is expanded upon in Chapter 3. To this end, the first section operationalises the school climate

dimensions included in the study (Section 1.3.1). The section goes on to provide a rationale for the hypothesised relationships between the school climate and the three outcome variables: wellbeing (Section 1.3.2); resilience (Section 1.3.3) and moral identity (Section 1.3.4). Finally, sections 1.3.5 to 1.3.7 provide a rationale for the hypothesised interrelationships between the three outcome variables.

1.3.1   Subjective dimensions of school climate

For the purpose of this study, school climate is defined as the norms, values and expectations that support people feeling socially, emotionally, and physically safe (Cohen, McCabe, Mitchelli & Pickeral, 2009). Whilst there has been a number of school climate dimensions explored in past research, this study examines six important subjective dimensions of school climate. This section provides a brief operational definition of the construct being assessed and justifies the inclusion of each of these dimensions in terms of their importance to an inclusive school. Two of the dimensions, Teacher Support and Peer Connectedness, are used to assess students' perceptions of the level of social connectedness that they have to peers and teachers (Section 1.3.1.1.). A third dimension, School Connectedness, assesses the extent to which students felt a sense of belonging or connectedness to the school (Section 1.3.1.2). A fourth dimension, Affirming Diversity, is used to assess the extent to which diversity was acknowledged and valued (Section 1.3.1.3). Finally, two dimensions, Rule Clarity and Reporting and Seeking Help, are used to assess students' perceptions of the guidelines regarding interpersonal behaviour (Section 1.3.1.4).

1.3.1.1   Social connectedness

Social connectedness refers to the sense of belonging that is created by the relationships students have with their teacher and peers. Past research suggests that these relationships can significantly enhance a students' learning experience and have a substantial influence on multiple student outcomes; for example, engagement in learning (Osterman, 2000) and greater emotional health (Kidger, Araya, Donovan, & Gunnell, 2012).

As pertaining to this study, the relationship that students have with their teachers is referred to as 'teacher support' and encompasses the extent to which students perceive that teachers are supportive and helpful. Past research has indicated that the relationship between the teachers and their students provides support and consequently enhance a student's sense of belonging (Costello, Toles, Spielberger, & Wynn, 2000; Programme for International Student Assessment (PISA), 2003). Further, Kidger, Araya, Donovan and Gunnell (2012) found that there was a direct correlation between students' emotional health and their perception of how supportive, caring, interested and fair their teacher was.

For the purpose of this study, the relationships that students have with their peers is referred to as 'peer connectedness' and represents the extent to which students feel that there is contact and friendship between students. Peer relationships have been found to be an important element of an adolescent's life, providing stability and the support needed to cope with life's stressors (Buhrmester, 1996; Law, Cuskelly & Carroll, 2013). Furthermore, Ryzin, Gravely and Roseth (2009) argue that peer connectedness can influence an adolescent's adjustment and promote positive growth and development.

Given the significance of social connectedness on adolescent development, this study explores students' perceptions of their relationships with their teachers and peers utilising two scales: Teacher Support and Peer Connectedness.

1.3.1.2   *School connectedness*

The concept of school connectedness is frequently used to conceptualise and describe a sense of belonging that students develop within the school (Libbey, 2004; Resnick, et al., 1997). School connectedness has been identified as an essential protective feature of adolescent development, and linked to the enhancement of school retention, emotional and physical health and wellbeing, and the reduction of disruptive behaviour (Bond et al., 2007; Chapman, Buckley, Sheehan, Shochet, & Romaniuk, 2011; Shochet, Smyth, & Homel, 2007). Given that children are fundamentally social beings (Hart & Carlo, 2005), it is not surprising that their

mental and emotional health development is enhanced when they experience positive connections with others that are consistent, continuous and reciprocal. Therefore, this study explores students' sense of belonging within their school community using a school connectedness scale.

1.3.1.3   *Affirming diversity*

Not unlike the culturally and ethnically diverse Australian population (Australian Bureau of Statistics, 2012), school environments continue to diversify. According to Dessel (2010) students are given numerous opportunities to learn about differences, conflict resolution and peaceful coexistence. Further, this learning environment satisfies a student's principal need to belong (Maslow, 1962). Past research has found that when students feel accepted, valued and included, regardless of their cultural, social, financial, intellectual or personal standing, their educational participation is maximised (Finn, 1989). Therefore, this study used the Affirming Diversity scale to assess the extent to which students from differing cultural and language backgrounds, interests and experiences and preferred learning styles felt that they were acknowledged and valued.

1.3.1.4   *Guidelines regarding interpersonal behaviour*

The importance of students' perception of safety in schools, highlights two other significant dimensions of school climate - the clarity of the rules and the mechanisms in place to ensure that students can report incidents and seek help.

As pertaining to this study, the extent to which school rules are clear is called 'rule clarity'. The importance of clear rules and order has been found to create and enhance a safe school climate, which supports positive behaviours and limits negative behaviours (Cohen, McCabe, Michelli, & Pickeral, 2009; Hernandez & Seem, 2004; Teddlie & Reynolds, 2000). Further, clear rules that are consistently communicated and enforced support both teachers and students by providing clear guidelines for interpersonal conduct (Hernandez & Seem, 2004; Kawachi & Berkmann, 2000), which in turn, enhances a school's climate. According to Welsh

(2000) and Devin and Cohen (2007), rule clarity and the consistent enforcement of the rules have a crucial influence on students' perceptions of safety, which in turn leads to the promotion of student learning and healthy development.

Given that research evidence suggests that having fair, clear and consistent rules contributes to a safe school climate, this study assesses whether students perceived that the school rules were clear and promoted a safe environment by including the Rule Clarity scale.

Past research suggests that a safe school climate which upholds the rights of students has clear avenues for students to report the breaking of rules (Antop-Gonzalez, 2006; Bandyopadhyay, Cornell, & Konold, 2009). Further, research suggests that there are clear links between students' emotional outcomes and their perceptions of how safe their school is (Gottfredson, 1989). Given the significance of school guidelines regarding interpersonal behaviour for student development, this study assesses the extent to which the school climate provided an orderly environment (Aldridge & Ala'i, 2013) by utilising the Reporting and Seeking Help scale. This scale assesses whether students were aware of procedures and felt safe to report incidents of harassment, bullying and prejudice.

Based on theory and past research, this study hypothesises that these six subjective dimensions of school climate are related to students' wellbeing, moral identity and resilience, as described below.

1.3.2 *Hypothesis 1: School climate is related to student wellbeing*

For the purpose of this study, wellbeing is defined as "optimal psychological feeling and functioning" (Ryan & Deci, 2001, p. 142) or, more simply, the combination of feeling good and functioning well. Past research has shown that an integral facet of an adolescent's overall health, development and wellbeing is their social and emotional wellbeing (Australian Institute of Health and Welfare, 2012). Furthermore, the successful negotiation of physical, intellectual and emotional challenges during childhood and adolescence has been linked to high levels of social and emotional wellbeing. The benefits of positive mental health and wellbeing have been shown to

go beyond the immediate effects and linked to an individual's future economic and emotional wellbeing (Gibbons & Silva, 2011).

As previously discussed, the role of schools in students' development has evolved, therefore, this study explores the influence that an inclusive school climate can have on student wellbeing. There is a growing body of literature that supports the notion that schools are not only a place for learning, but also positive institutions that facilitate human and social development (Seligman & Csikszentmihalyi, 2000). In Australia, evidence of this re-conceptualisation of a school's role is clearly reflected in recent policy initiatives: the National Safe Schools Framework (DEEWR, 2010); the National Framework in Values Education (date); and National Mental Health initiatives such as *Mind Matters* (Commonwealth of Australia, 2010). In conjunction with the growing recognition of a school's role, there is emerging research that identifies the influence on school climate on students' psychological wellbeing (Virtanen, Kiviimaki, Luopa, Vahtera, Elovainio, Jokela & Pietikainen 2009). Based on the research and findings aforementioned, it is hypothesised that students' perceptions of the school climate are related to their sense of wellbeing (*Hypothesis 1*).

1.3.3   *Hypothesis 2: School climate is related to student resilience*

Relative to this study, resilience refers to the ability of an individual to "thrive in the face of adversity" (Connor & Davidson, 2003, p. 77). Benard (2004) and MacDonald and Validivieso (2000) claim that schools could develop climates that promote resilience in students by providing developmental opportunities and emotional, motivational and strategic supports. Resilience-building school climates would most likely have caring relationships, high academic and social expectations, and opportunities for meaningful participation and contribution (Benard, 2004; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). Krovetz (1999), Miller (2001) and VanderVen (2004) suggest that resilient youth have teachers who accept, respect and trust them and provide opportunities to excel. Further, Coutu (2002, p. 52) suggests that schools with strong values offer students "ways to interpret and shape events" which, in turn, enhances their resilience. In essence, a school's stable and consistent values provide a lens which students can utilise to help understand and respond to

situations. Overall, schools seeking to be proactive with their approach to building student resilience rather than reactive aim to enhance strength and capability, rather than simply appraise risk or vulnerability (Panter-Brick & Leckman, 2013; Ungar, Ghazinour & Richter, 2013).

Given the high prevalence of depression among young people worldwide, the importance of resiliency training in schools is becoming recognised (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). Further, Brophy (2009), Flum and Kaplan (2006) and Harrell-Levy and Kerpelman (2010) argue that the school's role in equipping an individual to cope with rapid changes (that is, resilience) is of utmost importance.

Based on the recent research and findings related to resilience and the role of education, this study hypothesises that the school climate is related to a student's resilience (*Hypothesis 2*).

1.3.4   Hypothesis 3: School climate is related to students' moral identity

For the purpose of this study, moral identity is defined as the "extent to which people identify with, and are invested in, being a moral person and doing what is moral" (Hardy, Walker, Olsen, Woodbury, & Hickman, 2014, p. 45). As such, the development of moral identity is reliant on the individual's commitment to "lines of action that promote or protect the welfare of others" (Hart, Atkins, & Ford, 1998, p. 515).

Past research has shown that moral development and moral action are embedded in community contexts (Kochanska, 2002) which, in turn, is central to an individual's understanding of their moral self (Power, 2004). In essence, the interactions with others within a community help to shape moral development and action through the shared sense of obligation or responsibility to act. Payne, Gottfredson and Gottfredson (2003) highlight this interplay between school community and student outcomes related to moral identity formation, reporting that students who identified that their school was organised and caring showed stronger ownership of community values and more prosocial behaviour. Other research has identified elements of the

school community that play a significant role in moral development, including attachment to teachers (Watson, 2008), school bonding (Catalano & Hawkins, 2004; Libby, 2004) and caring school communities (Payne, Gottfredson, & Gottfredson, 2003).

To date there has been limited research that has explored the impact of specific school climate dimensions on a students' moral identity. This study fills this gap in the field by focusing on elements that are important to inclusive schools and exploring the potential relationship with students' moral identity. To this end, this study hypothesises that the school climate is related to students' moral identity (*Hypothesis 3*).

In summary, this study hypothesises that the school climate is related to a student's development in terms of the three outcomes:

> *Hypothesis 1   School climate is related to students' wellbeing*
> *Hypothesis 2   School climate is related to students' resilience*
> *Hypothesis 3   School climate is related to students' moral identity.*

The relationship of these hypotheses to the structural model is portrayed in Figure 1.1.

The second aim of the study is to examine the interrelationships between these three outcomes. The following sections outline the hypothesised relationships included in this model.

1.3.5   Hypothesis 4: Students' resilience is related to their wellbeing

Past studies that have explored the relationship between resilience and wellbeing have found that resilience makes a significant contribution to an individual's wellbeing (Agbakwuru & Stella, 2012). Previous studies have indicated that the positive influence of resilience can be attributed to an individual's self-esteem, self-confidence (Benetti & Kambouropoulos, 2006) and optimistic self-perception (Mak, Ng, & Wong, 2011). In essence, resilient individuals have the necessary skills to

adapt to situations. They tend to navigate adversities competently (Masten, Herbers, Cutuli, & Lafavor, 2008), have greater capacity to advance toward their goals (Tugade & Frederickson, 2004) and exhibit greater levels of hope and optimism. These outcomes, in turn, enhance wellbeing (Yarcheski, Scholoveno, & Mahon, 1994; Zaleski, Levey-Thors, & Schiaffino, 1998). As Mak, Ng and Wong (2011) state, resilience enhances self-confidence, positive world perception, and hope for the future.

In light of these findings, this study hypothesises that resilience is related to a student's sense of wellbeing (*Hypothesis 4*).

1.3.6 Hypothesis 5: Students' resilience is related to their moral identity

There is a large body of literature that suggests that resilience provides individuals with protective factors and self-confidence (Benetti & Kambouropoulos, 2006), a stronger sense of self (Mak, Ng, & Wong, 2011) and more self-righting and self-correcting systems (Masten, Herbers, Cutuli, & Lafavor, 2008). Furthermore, past studies have found resilience to be a mediating factor in other student outcomes (such as wellbeing, Agbakwuru & Stella, 2012), demonstrating its powerful influence on other aspects of adolescent development.

Drawing on these findings, this study hypothesises that resilience is related to a student's sense of moral identity (*Hypothesis 5*).

1.3.7 Hypothesis 6: Students' moral identity is related to their wellbeing

There has been limited research that has explored the specific relationship between moral identity and wellbeing. Past research, however, has indicated a link between the strength of an individual's sense of identity and their level of psychosocial functioning (Kroger, 2007). Specifically, a strong sense of identity was found to be correlated with limited engagement with health-risk behaviours (Bishop, Weisgram, Holleque, Lund, & Wheeler-Anderson, 2005); fewer mental health issues (Crocetti, Kilimstra, Keijsers, Hale, & Meeuse, 2009) and greater levels of psychological wellbeing (Dunkel, Mathes, & Harbke, 2011). More recently, there has been some research that has explored the outcomes of moral identity, revealing a relationship

with positive behaviours (Hardy, Francis, Zamboanga, Kim, Anderson, & Forthun, 2013) and wellbeing (Roeser et al., 2008). These findings are not necessarily based on a new notion; Plato asserted that "immorality was as harmful to the soul as disease was to the body" (as cited in Seeskin, 2008, p. 488). In short, although research and theory have revealed a connection with identity formation in general and in behavioural and mental health outcomes, limited research has been carried out to date to examine the relationship between moral identity and wellbeing specifically.

In light of the findings and in an effort to bridge a gap in research, this study hypothesises that moral identity is related to a student's sense of wellbeing (*Hypothesis 6*).

1.4 Outline of the research objectives

The overarching purpose of this study is to explore the influence that the school climate has on student development. It explores specific dimensions of the school climate and the potential relationship each one has on student development; specifically, student wellbeing, moral identity and resilience. In addition, it explores the interrelationships between the outcome variables.

The present study utilised two questionnaires, both of which have not been used in the South Australian context. It was important, therefore, to ensure their suitability for use in secondary schools in South Australia, to provide confidence in the results that inform the subsequent research objectives. Therefore, the first research objective is:

Research Objective 1

> To provide evidence to support the validity and reliability of the instruments used to assess students' perceptions of the school climate and self-reports of wellbeing, moral identity and resilience, when used in independent secondary schools in South Australia.

Past research has found a number of student outcomes can be influenced by the school climate. This study extends past research by examining the relationship between specific dimensions considered to be important to an inclusive school climate and student outcomes related to mental health and wellbeing. Therefore, the second research objective is:

Research Objective 2

To explore the relationships between students' perceptions of the school climate and their self-reports of:

- wellbeing;
- resilience; and
- moral identity.

Given that the human condition is highly complex and interconnected, it is unlikely that an individual's wellbeing, resilience and moral identity will exist in isolation. It was important, therefore, for this study to examine the interrelationships between the outcomes in order to identify if one of the outcomes measured can significantly influence another. Therefore, the third research objective is:

Research Objective 3

To investigate the relationships between:

a. resilience and wellbeing
b. resilience and moral identity
c. moral identity and wellbeing.

These hypothesised relationships are discussed and justified further in Chapter 3.

1.5   Significance of the study

The significance of this study is outlined briefly below and expanded on in Chapter 6. The current study is of theoretical, methodological and practical significance to school climate research.

Theoretically, this study extends past research and contributes to past literature in several ways. First, this study serves to fill a research gap with respect to the exploration of relationships between dimensions of the school climate and the formation of moral identity. To date, the majority of research has been limited to the exploration of the concept of identity formation in general in relation to school climate. This study focused specifically on moral identity formation, thus making a significant contribution to the field of school climate research. In the face of ever increasing statistics regarding mental illness, this study's results provide a timely insight into school climate and the level of influence it has on student development and implications for leaders seeking to improve student outcomes.

Second, this study makes a distinct contribution to past research and literature related to school climate and student outcomes. Its contribution is important because it offers new insights into school climate dimensions and student outcomes through a student's lens, and it is the first study in South Australian independent schools that explores the impact of school climate on student outcomes. In essence, this study builds on past research that has had similar foci, while offering new insights and practical implications for schools and educators.

This study is methodologically significant because it develops and validates a new instrument to assess students' wellbeing, moral identity and resilience. This instrument can be used by school leaders as a tool to assess their school climate and its influence on students' wellbeing, moral identity and resilience, with a view to enhancing school climate and student outcomes.

The findings of the study also make practical contributions that can be of significance to schools. For example, this study identifies salient school climate dimensions that influence students' wellbeing, moral identity and resilience. These findings offer a greater understanding of the multi-faceted nature of schools and the importance of each dimension for student development. Importantly, the findings provide insights into student resilience and the significant influence this has on both wellbeing and moral identity.

To the best of my knowledge, this is the first study involving a number of South Australian independent schools that explores school climate and its influence on student wellbeing, moral identity and resilience. Therefore, the findings from this study have the potential to increase understanding of the relationship between school climate and student development.

Overall, these findings offer insights into how educators can nurture a school climate that positively influences student wellbeing, moral identity and resilience. It can inform school administrators, government and policy makers when they are considering programs and approaches in education to address concerns about students' mental health and wellbeing, ensuring maximum effectiveness and impact. Further, it offers curriculum developers pertinent insights into student development, which, in turn, can provide them with direction on curriculum, professional development and resource allocation decisions.

1.6   Overview of the thesis

In this chapter, an introduction and background to the present study is provided. It includes a rationale for the study, an outline of the research objectives, and provides a conceptual framework for the hypotheses. This chapter also provides a brief overview of the significance of this study.

In Chapter Two the researcher provides a review of literature pertinent to research reported in this thesis, including school climate, wellbeing, moral identity and resilience. Within this chapter a detailed overview of the theory, past research and instruments that have been developed to assess each of these areas is provided. The researcher pays particular attention to past research that has focused on exploring the relationships between school climate and student wellbeing, moral identity and resilience, and the interrelationships between the three outcome variables.

In Chapter Three the research methods used in this study are detailed. In this chapter, the researcher provides a description of the research participants and their selection. Further, the researcher provides a detailed description of the two instruments that were used (one to assess perceptions of the school climate and one to assess student

wellbeing, resilience and moral identity), along with how data was collected and analysed. A summary of the ethical considerations made throughout the study concludes this chapter.

In Chapter Four, the researcher reports the findings from the analysis used to address the first research objective which sought to provide evidence to support the validity and reliability of instruments when used in independent secondary schools in South Australia. The analysis involved the examination of the factor structure, internal consistency reliability, concurrent validity and discriminant validity.

Within Chapter Five the results of the analysis used to address the second and third research objectives are reported. The second research objective explored the potential relationships between students' perceptions of the school climate and their self-reports of wellbeing, moral identity and resilience, and the third research objective explored the interrelationships between the outcomes. In this chapter, the researcher starts by examining the fit and exploration of the research model and provides descriptive statistics of the dimensions of school climate and outcomes measured. The results of the confirmatory factor analysis are also detailed. Finally, the chapter is concluded with a report on the confirmation of the research model and hypotheses testing.

Chapter Six concludes the thesis. In this chapter the researcher starts by providing a summary and discussion of the findings. The limitations of the study are then acknowledged and a discussion on how these might be addressed in future studies is included. The researcher then provides a discussion of the educational implications of the findings and a summary of recommendations. The significance of the study is then outlined, followed by a concluding remark.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1   Introduction

This chapter provides a review of literature that is relevant to this study. The review is organised using the following headings:

- School climate (Section 2.2);
- Wellbeing (Section 2.3);
- Resilience (Section 2.4);
- Moral identity (Section 2.5); and
- Chapter summary (Section 2.6).

2.2   School climate

As the focus of this study is to investigate the relationship between school climate dimensions and student outcomes, the researcher starts by reviewing literature related to the definition of school climate, and then defines school climate for the purpose of this study (Section 2.2.1). The researcher goes on to review past research on school climate (Section 2.2.2) and the instruments used to assess school climate (Section 2.2.3).

2.2.1   Defining school climate

Within the last twenty years, the significance of the school climate (Bocchi, Dozza, Chianese, & Cavrini, 2014) and its effect on adolescent health and development (Rowe, Stewart, & Patterson, 2007) have been increasingly acknowledged by researchers and educators alike. To begin to understand these findings and what is meant by school climate, it is necessary to distinguish the subtle but important differences between culture and climate.

Whilst school culture and climate are considered to be related to the "way in which the school works and the atmosphere that prevails between members" (Glover & Coleman, 2005, p. 253), they are subtly different in definition. School culture is generally considered to be a more abstract, slippery (McMahon, 2001, p. 126) construct, when compared to school climate, which focuses on the "assumptions, interpretations, and expectations that drive individual behaviours within the school context" (Roach & Kratochwill, 2004, p. 13). Early research defined school culture as "the way we do things around here" (Deal & Kennedy, 1983), highlighting the significance of members' perceptions and assumptions within the definition. As definitions evolved, Hoy, Tarter, and Kottkamp (1991) sought to synthesise them, and thus defined school culture as "a system of shared orientations held by members, which holds the unit together and gives it a distinct identity" (p. 5).

In contrast, school climate is considered to be a more tangible construct, that is, a "summary of the factors affecting pupil behaviour and achievement outcomes" (Glover & Coleman, 2005, p. 256). For example, in early research, school climate was defined as the social atmosphere (for example, the relationships, rules and procedures) of the learning environment (Moos, 1979), recognising the impact differing teacher and administration protocols had on students' experiences. As research developed in this field, the definition of school climate varied. Regardless of the variations, a common thread throughout the definitions is the recognition of factors that affect the macro-environment (Glover & Coleman, 2005). More recent school climate definitions include: the character and quality of school life (Brookover, 1985; Cohen, McCabe, Mitchelli & Pickeral, 2009); the "interpersonal interactions that occur within the school that influence students' cognitive, social and psychological development" (Haynes, Emmons, & Ben-Avie, 1997, p. 322); a shared and enduring moral perception of psychologically important aspects of the school (Asif, 2011); things that happen every day at school and the reactions that people have to those things (Manvell, 2012); and the shared beliefs, values, and attitudes that underpin all social interactions and provide an outline of the schools' norms (Kupermine, Leadbeater, Emmons, & Blatt, 1997).

For the purpose of this study, school climate is defined as the "norms, values and expectations that support people feeling socially, emotionally, and physically safe" (Cohen, McCabe, Mitchelli, & Pickeral, 2009, p. 182).

2.2.2   Past research on school climate

For over 100 years a significant amount of research has involved the conceptualisation of the school climate and the development, validation and application of instruments with which to measure it (Perry, 1908). Educational reformers Perry (1908) and Dewey (1916), recognised that students were affected both personally and educationally by their schools' unique culture. From these beginnings grew systematic research into school climate in several fields, including academic achievement, school connectedness, positive youth development and teacher retention.

The theoretical foundations of school climate research can be traced back to Lewin in 1936. Lewin (1936) theorised that a determinant of human behaviour was the interaction of the environment and a person's characteristics. Drawing on Lewin's field theory, Murray (1938) then continued to research school climate by formulating a 'needs-press' model of interaction in which the environment's role in meeting a person's need can be either supportive or disruptive.

The 1950s saw the beginnings of empirically grounded school climate research, with researchers Halpin and Croft (1962) initiating a tradition of the systematic exploration of the impact of school climate on student learning and development. More recently, school climate studies have shown a strong association with school improvement and school environments that foster safety, relationships, and teaching and learning (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). Furthermore, school climate research has grown to include a number of studies that highlight not only the significance of school climate in school improvement agendas, but also in the prevention of bullying (Thapa & Cohen, 2013).

As this study focuses on students' perceptions of school climate, it is important to distinguish between school- and classroom-level research (Rentoul & Fraser, 1983).

In essence, school-level research has generally been associated with the field of educational administration and explored relationships between teachers, principals and administrators from a teacher's perspective (Anderson, 1982; Maslowski, 2006; Damanik & Aldridge, in press). Classroom-level research has been commonly measured by student perceptions and the relationships in their classroom (Fraser, 2012; Huang & Fraser, 2009). This study extends past research by exploring school climate from a student perspective rather than from a staff perspective.

Early research on school climate reported connections between student academic achievement and the types of school environment (Brookover, Schweitzer, Schneider, Beady, Flood, & Wisenbaker, 1978; McDill, Rigsby, & Meyers, 1969; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). Other more recent research explored the specific dimensions of school climate and the impact that these have on various outcomes (Moos, 1974). For example, Schunk and Zimmerman (2007) argued that teachers ultimately have the responsibility for increasing their students' positive self-beliefs.

As interest in school climate research has grown, a new focus emerged and has become known as school effectiveness research (Reynolds, Teddlie, Creemers, Scheerens, & Townsend, 2000). In this research, three key categories have emerged: school effects research, effective schools research, and school improvement research; of these, my study fits into the first category. The school effectiveness research category originated from United States and has since been carried out in the United Kingdom, the Netherlands and Australia. From the mid-1960s up until the early 70s, school improvement research has, essentially, focused on the possible influences that human and physical resources have on outcomes. These school outcomes at this time were generally limited to student achievement on standardised tests (Jencks, 1973). Subsequent research in the 1970s explored a broader scope of outcomes than previous studies had. Social psychological scales were developed during this era that aimed to measure more effectively the educational processes at the school and class levels. These scales included more direct measures of student, teacher and principal attitudes toward schooling than the archived data used in earlier studies. For example, Brookover et al. (1978) used surveys designed to measure the perceptions of students and teachers with respect to the school climate. In their study of 68

elementary schools in Michigan, their work built upon previous attempts to measure school climate by researchers such as McDill and Rigsby (1973). Brookover and his colleagues developed 14 social psychological climate scales based on several years of work.

Throughout past research, a complex set of school climate dimensions have been identified and utilised. Past research has recognised that the school climate is a dynamic ecological system that both affects and is affected by a number of complex elements (Bronfenbrenner, 1979; Ma, Phelps, Lerner, & Lerner, 2009). Whilst there has not been one commonly accepted list of elements that mold and influence the school climate, there are four dimensions considered to be important that past research has frequently focused on (Cohen, 2006; Freiberg, 1999): safety; relationships; teaching and learning, and environmental-structural (Cohen, McCabe, Michelli, & Pickeral, 2009; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). Given that this study draws on and extends the field of school climate, this section provides a brief review of the four key dimensions.

2.2.2.1   Safety

Past research that has identified safety as a school climate feature has explored both physical and social-emotional safety. Early research by Sherman, Gottfredson, MacKenzie, Eck, Reuter and Bushway (1997) identified a direct relationship between the level of behavioural disruptions in schools and how schools were run, highlighting the importance of nurturing a safe environment. Research by Gottfredson (1989) explored specific school climate safety factors that contributed to unsafe schools; for example, lack of clarity on rules and ignoring misconduct. This research highlighted the detrimental effect that unsafe schools and school violence has on student learning and emotional outcomes (Gottfredson, 1989). In more recent research, other social emotional dimensions of school climate have been found to influence a student's sense of safety, including bullying, conflict resolution, attitudes about individual differences, and violence (Bradshaw, Waasdorp, Debnam, & Johnson, 2014). Other research was based on a positive framework and sought to measure factors that contributed to a safe school climate (Hernandez & Seem, 2004). Through this past research a number of school climate dimensions have been found

to contribute to a student's sense of safety, including: high expectations, orderly school and classroom environment and clarity of rules (Stockard & Mayberry, 1992; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013).

While past research has explored school climate dimensions that contribute to a student's sense of safety, there is a dearth of research related to how this specifically relates to student outcomes, particularly their wellbeing, moral identity and resilience. Therefore, this study addresses this research gap by investigating the relationship between students' sense of safety and their wellbeing, moral identity and resilience, hypothesising that a greater 'sense of safety' will enhance the specified student outcomes. A student's sense of safety was measured using two scales: 'rule clarity' and 'reporting and seeking help'.

2.2.2.2   *Relationships and connectedness*

Past research in the field of school climate has identified 'relationships and connectedness as key dimensions. This research has explored how 'connected' individuals felt to their school, learning and each other (Resnick, Harris, & Blum, 1993; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). While there has been some variation in definitions of connectedness across studies, when seeking to measure a sense of connectedness, research has explored an individual's perception of acceptance, respect, care, support or involvement (Jose, Ryan, & Pryor, 2012). In essence, connectedness referred to the bonds that an individual develops, identifying three key elements of this bond; attachment, commitment and involvement (Libbey, 2004; Patton et al., 2000; Resnick et al., 1997; Rowe, Stewart, & Patterson, 2007). Research that followed thus sought to explore the dynamic multi-faceted nature of social and school relationships and a student's sense of connectedness or belonging (Preece, 2009). Rowe, Stewart and Patterson (2007) explored the quality of relationships students had with their peers and teachers, and the perceived level of cohesiveness. The analyses of data collected supported past research that indicates a cohesive society has strong social bonds of "interpersonal trust and norms of reciprocity" (Kawachi & Berkmann, 2000, p. 175).

The importance of peer connectedness is not a new notion, as significant past research has shown clear links between peer relationships and a variety of outcomes. Specifically, positive peer relationships have been associated with higher self-esteem, better school performance, and stronger achievement motivation (De Bruyn & Van Den Boom, 2005; Harter, Waters, & Whitesell, 1998; Nelson & DeBacker, 2008). Given the significant influential nature of peer connectedness, it is not surprising to see it included as an important dimension of school climate.

Further to this point, another school climate dimension that has been explored within the social connectedness domain is the teacher-student relationship. Past research has found strong associations between teacher support and positive student outcomes. Specifically, students who perceived their teachers to be supportive, caring, interested and fair reported higher levels of emotional health (Kidger, Araya, Donovan, & Gunnell, 2012) and engaged in fewer health risk behaviours (Voisin, Salazar, Crosby, Diclemente, Yarber, & Staples-Horne, 2004). Strong social connectedness, both peer and teacher, was found to feature "high levels of interpersonal trust and norms of reciprocity – otherwise known as social capital" (Kawachi & Berkmann, 2000, p. 175) and to significantly influence students' health and wellbeing and engagement in learning (Osterman, 2000; Russell, 2002; Samdal, Nutbeam, Wold, & Kannas, 1998).

Given that past research has suggested that students are significantly influenced by relationships with their peers and teachers, it was essential that the present study included the school climate dimensions of peer connectedness and teacher support. Specifically, this study extends past research by exploring the impact of these two dimensions on students' wellbeing, moral identity and resilience.

School connectedness, as suggested by Rowe, Stewart and Patterson (2007) and Kawachi and Berkmann (2000), is an ecological concept. It recognises the nature and associated processes and structural aspects of a school environment (Rowe & Stewart, 2011) and the impact these have on an individual's sense of belonging. Past research related to school connectedness suggests that it is a pivotal component of the school climate. The findings of past research suggest that school connectedness is related to improved behavioural problems and student emotional success at school

(Frydenberg, Care, Freeman, & Chan, 2009; Gray & Hackling, 2009; Wang, Selman, Dishion, & Stormshak, 2010). Furthermore, studies have indicated that there are strong correlations between students' reports of poor connectedness and violent and high risk behaviours (Libby, 2004; Maddox & Prinz, 2003).

Although research supports the idea that a student's perception of their connectedness at school can influence their sense of belonging (Frydenberg, Care, Freeman, & Chan, 2009), there is a dearth of research related to the specific student outcomes that this study focuses on, particularly in South Australia. Therefore, this study addresses this research gap by investigating the relationship between a student's sense of belonging and their self-reports of wellbeing, moral identity and resilience.

2.2.2.3 *Teaching and learning*

Past research related to school climate has identified teaching and to be an important aspect of student development (Cohen, 2001; Wang, Haertel, & Walberg, 1993). Specifically, this research identified that student outcomes were influenced by the quality of teacher instruction and on-training, subjective aspects of learning, and leadership (Najaka, Gottfredson, & Wilson, 2001). While early research findings were based on the perceptions of teachers and staff, researchers soon began to examine various aspects of teaching and learning and the potential outcomes from student perspectives. Studies in this field have yielded consistent results relating to the quality of instruction, achievement expectations, provision of learning support, opportunities for participation and/or the variation of teaching methods, and a student's overall development (Juvonen, 2007). Further, Cohen (2006) and Felner, Favazza, Shim, Brand, Gu and Noonan (2001) found a strong correlation between professional development and learning enhancement and continual improvement from the teachers' perspective. Past research has also suggested that, in terms of the quality of teaching, teachers are likely to report more favourably than students (Brand, Felner, Seitsinger, Burns, & Bolton, 2008; Fisher & Fraser, 1983; Fraser, 2012).

While school climate research has found that the quality of teaching and learning profoundly influences student outcomes (Barile, Donohue, Anthony, Baker, Weaver, & Henrich, 2012; Comer, 2015; Hess, Maranto, & Milliman, 2001), this study did not explore this aspect. Importantly, this study focused on the more subjective elements of a school climate from the students' rather than the teachers' perspective. Thus, teaching and learning were not considered to be pertinent.

2.2.2.4   *Environmental-structural*

Past research related to school climate has included a focus on environmental-structural dimensions, which assessed the adequacy and appeal of resources, regulation of school environment and the curricular and extracurricular offerings (Anderson, 1982; Stewart, 1979). Research that measured this dimension utilised a definition that included an objective view of school climate (Homana, Barber, & Torney-Purta, 2006; Tagiuri, 1988) and sought to assess perceptions of a healthy school environment; for example, indoor air quality and physical environment (U.S Department of Health and Human Services, 2000). While results from past research suggest that this dimension is an important aspect of school climate that is worth measuring (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979) this dimension is often excluded from school climate measures (Ramelow, Currie, & Felder-Puig, 2015). Given that this study's school climate definition focused more on the subjective dimensions of a school climate, the environmental-structural dimension was not examined.

Regardless of what aspects of the school climate were included, a common driving force behind past research in this field has been to unveil the overall impact of school climate on student outcomes. This research provides strong support to suggest that the school climate impacts on student: achievement (Lee & Shute, 2010); adjustment (Wang, Wu, & Wang, 2009); attitudes (Battistich, Solomon, Kim, Watson, & Schaps, 1995); engagement (Brady, 2006); and academic achievement (Brookover et al, 1978; Esposito, 1999; Hoy & Hannum, 1997; MacNeil, Prater, & Busch, 2009). In addition, positive school climates have been strongly associated with: students' self-concept (Cairns, 1987); successful risk prevention and health promotion results (Cohen, 2001); and lower levels of absenteeism (De Jung & Duckworth, 1986).

Overall, in the last 50 years, significant research findings have provided strong empirical evidence to suggest that a positive school climate promotes multi-developmental goals (Eccles & Roeser, 2011; Fraser, 2012).

While past research has confirmed that school climate is indeed a powerful determinant of student learning and overall development (Comer, 1989), there are limited past studies that have been carried out from the students' perspective. Even within the studies that have included varying perspectives (staff, student and parent), sometimes large discrepancies have been found between student and teacher perceptions (Cohen, Sharpiro, & Fisher, 2006). This study examined the students' perspective, as they are at the centre and heart of a school's focus (Cohen, Sharpiro, & Fisher, 2006), thus extending past research. Further, there is limited research that explores specific school climate dimensions and their impact on mental health and wellbeing. Given the rise in adolescents' mental health issues and the emerging role of schools in terms of overall student development, this study addresses this research gap by exploring a student's perspective of six school climate dimensions.

2.2.3 *Instruments developed to assess the school climate*

Over the past three decades, a number of instruments have been developed to measure different aspects of school climate. In the main, early instruments sought to measure school climate from a strictly physical environment focus (Anderson, 1982). More recently, however, researchers have begun to view school climate as a measure of subjective school experience (Cohen, 2006) and, reflecting this, instruments began to include scales that assessed feelings of safety (Cohen, McCabe, Michelli, & Pickeral, 2009). For example, instruments measured order and rules and social and emotional safety. It is worth observing that the majority of these school climate surveys were developed for use with teachers, not students. It is only in recent years that surveys have been created specifically for students, seeking their insights into and perspectives on school climate (Ramelow, Currie, & Felder-Puig, 2015).

This section provides an overview of some historically important and contemporary instruments that have been developed for use with students. Instruments include: The

High School Characteristics Index (Section 2.2.3.1); The Inventory of School Climate — Student Version Scale (Section 2.2.3.2); The School Climate Survey (Section 2.2.3.3); Comprehensive School Climate Inventory (2.2.3.4); Delaware School Climate Survey (Section 2.2.3.5); Georgia Brief High School Inventory (Section 2.2.3.6); School Climate Measure (Section 2.2.3.7); California School Climate and Safety Survey (2.2.3.8); The Dyokan questionnaire (Section 2.2.3.9); and What's Happening In This School Survey (Section 2.2.3.10).

2.2.3.1   *High School Characteristics Index*

Developed by Stern (1964), the High School Characteristics Index (HSCI) is considered to be one of the pioneering surveys of school climate research (Anderson, 1982). It was designed to measure the climate of secondary schools exclusively, using thirty environment characteristics that were identified by Pace and Stern (1958). The HSCI is based on the Murray's personal needs and environmental press needs theory (1938). The HSCI included 30 scales with ten items in each scale. Scales included change, order, and play. The HSCI was responded to primarily by students. Items were responded to using a true or false format. Examples of items include: 'Students seldom change place during class' for the Change-Sameness scale; and 'Many teachers get very upset if students happen to report to class a little late' for the Order-Disorder scale.

Past research has indicated that this instrument is able to effectively discriminate among schools for a range of sample sizes (Mitchell, 1967, 1968; Stern, 1970). In Herr and Kight's (1967) study involving 364 high school students, three methods where used to estimate the reliabilities of the 30 HSCI scales, including split-half, Kuder-Richardson Formula 21, and test-retest methods. The results indicated that 12 of the 30 scales had a reliability of between 0.041 to 0.541. For the remaining 18 scales, the median and highest reliability estimates ranged from 0.067 to 0.531. Further, given that the discriminant validity of individual scales has not been established, and because of the length of the survey (300 items) the HSCI was not considered for use in this study.

2.2.3.2   Inventory of School Climate — Student Version

The Inventory of School Climate — Student Version (ISC-S) survey, developed by Brand, Felner, Shim, Seitsinger and Dumas (2003), was developed to examine middle school students' experiences of school climate and its relationship to their academic, behavioural and socio-emotional adaptation. The ISC-S is similar to a scale developed by Trickett and Moos (1973) to assess students' views of the classroom learning environment, and was based on Moos's framework reflecting the social system perspective. The social system perspective conceptualises that the classroom environment is a "dynamic social system, which includes not only teacher's behaviour and teacher-student interaction but student-student interaction as well" (Trickett & Moos, 1973, p. 94). The ISC-S was designed to measure a school climate from the students' perspective. The survey consists of 50 items within 10 scales, four of which cover dimensions of social support (negative peer interactions, positive peer interactions, teacher support, support for cultural pluralism), three that cover structural features (clarity of structure, rules and expectations, disciplinary severity, instructional innovation) and three that cover dimensions of personal growth (student participation in decision making, student commitment to achievement, safety problems) (Bear & Yang, 2011; Bernat, 2009). Participants responded to individual items using a four-item Likert scale, that ranged from *strongly disagree* to *strongly agree*.

According to Brand et al. (2008), the ISC-S is a reliable scale, based on its internal consistency and stability over time. It has an easy-to-answer question format, with a uniform response scale and no negative formulations (Ramelow, Currie, & Felder-Puig, 2015). Utilising a sample size of 105,000 students from 188 middle-grade level schools in the United States, the ISC-S shows high levels of reliability in regard to internal scale consistency (ranging from 0.63 to 0.81 for different scales) and inter-rater agreement, and stability over time (correlations of 0.67 to 0.91 over 1 year and 0.25 and 0.87 over 2 years) (Bear, Gaskins, Blank, & Chen, 2011). Construct validity of CFI=0.951, was shown through confirmatory factor analysis.

Despite the strength of this questionnaire and reliability, it also has a few limitations. The ISC-S is not grounded in theory (Ramelow, et al. 2015) and, as yet, the four-

scale factor structure has not been established. Given these issues, in addition to the age range for which it was developed (Years 6 to 8), the instrument was not considered useful for this study.

2.2.3.3   The School Climate Survey

The School Climate Survey (SCS) was developed by Haynes, Emmons, and Corner (1994) to assess school climate in terms of social support and structure from a staff and parent perspective. The SCS consisted of fifty-three items in the nine subscales of achievement motivation, fairness, order and discipline, parent involvement, resource sharing, student interpersonal relations and student-teacher relations (Kohl, Recchia, & Steffgen, 2013). Sample items for this scale include, 'My school is a safe place' for the Security scale, and, 'Everyone is treated equally well at my school' for the Behavioural Values scale. Participants responded to each statement using a five-point Likert scale ranging from *strongly disagree* to *strongly agree*, with the addition of a *don't know* option.

The SCS has been reported to have adequate to high internal reliability and consistent nine factor structure between groups and within and between schools (Horn, 2003). The main limitation of this instrument is that it was designed to measure school climate from the perspective of parents and staff. Further, this instrument explores some school climate dimensions (for example, parent involvement) that were not chosen as a focus for this study. Given that our current study sought insight from a student perspective, this scale was not utilised.

2.2.3.4   Comprehensive School Climate Inventory

The Comprehensive School Climate Inventory (CSCI) was developed by the National School Climate Centre in 2002 and assessed four dimensions of school climate: "safety, relationships, teaching and learning, and the institutional environment" (Cohen, Pickeral, & McCloskey, 2009, p. 46). The CSCI was developed to understand student, parent and school staff perceptions of the socio-ecological environment of schools, and consisted of 118 items across four school

climate dimensions. Within each of these dimensions, various aspects were measured and contained a varying number of items. For example, under the dimension of safety, both physical and social-emotional safety were measured. Physical safety contained 11 items, and Social-Emotional safety contained 12 items. Participants responded to items using a five-point Likert Scale, ranging from *strongly agree* to *strongly disagree*. Example items include: 'In my school, we talk about ways to help us control our emotions', and 'I have been insulted, teased, harassed or otherwise verbally abused more than once in this school' for the Safety scale; and 'Students have friends at school they can turn to if they have questions about homework' for the Relationships scale.

In 2006, an initial study conducted by Sandy, Cohen and Fisher (2006) of the data to examine the test-retest reliability of the CSCI showed variability. In 2012 the CSCI was reviewed, assessed and modified. As a result of this review, modifications were made and assessed, and the Student CSCI-V3.0 was created. This version has proven to have good construct validity and very good reliability across upper elementary, middle and high school students at the factor and total score level: (RMSEA=0.054, CFI=0.977 and GFI=0.838); (internal reliability ranged from 0.70 to 0.98); (Cronbach coefficients 0.80 and 0.97).

Whilst the CSCI is one of the few surveys that recognises student, parent/guardian and school personnel voice (National School Climate Centre, 2014) it was not utilised as this study sought to gain a student's perspective. In essence, the length, use of language and its focus on more than just student perceptions confirmed that this survey was not appropriate for this study.

2.2.3.5   *Delaware School Climate Scale — Student*

The Delaware School Climate Scale (DSCS-S) was developed by Bear, Gaskins, Blank, and Chen (2011) to measure the social support and structure of the school climate. It is brief and psychometrically sound, originally created to complement existing methods and measures used to assessed a school's effectiveness.

The scale drew on Stockard and Mayberry's (1992) school climate theory and authoritative discipline theory (Baumrind, 1971; Bear, 2010; Gregory & Cornell, 2009). Initially, the main purpose of this scale was evaluate the effectiveness of a mandated bully prevention initiative in Delaware: the School-Wide Positive Behaviour Support Program (Sailor, Dunlap, Sugai, & Horner, 2009). After the initial confirmatory factor analysis, 29 items in five scales were retained: teacher-student relationships, student-student relationships, rule fairness, fondness of school, and safety. Examples of items include: 'Students treat each other with respect' for the Student-Student Relations scale; 'School rules are fair' for the Fairness of Rules scale; and 'Adults who work in this school care about the students' for the Teacher-Student Relations scale. Students responded to items using a four-point Likert scale of *strongly disagree* to *strongly agree*.

Utilising a sample of 11,780 students in 85 schools, confirmatory factor analysis was used to examine whether the factor structure was stable across grade level, racial-ethnic groups and gender (Bear, Gaskins, Blank, & Chen, 2011). The CFA results showed that the bi-factor model consisting of five specific factors and one general factor best represented the data (χ^2=1179.08, p<0.001; CFI=0.965, RMSEA=0.028, and SRMR=0.028) (IC=0.63 to 0.89 for the subscales and 0.91 to 0.94 for the scale in its entirety).

Although considered to be reliable, the DSCS-S assesses only social support and structural dimensions of school climate. In addition, some dimensions include only a small number of items, limiting the internal reliability (Bear, Gaskins, Blank, & Chen, 2011). Whilst this survey provided important insights into students' perceptions of school climate, it was not considered for use in the present study, which sought to measure additional school climate dimensions and their relationship with specific variables.

2.2.3.6   *Georgia Brief School Climate Inventory*

The Georgia Brief School Climate Inventory (GaBSCI), developed by White, La Salle, Ashby, and Meyers (2014), focuses on three dimensions of the school climate: teaching and learning; relationships; and safety. This short nine-item instrument was

designed to be a brief scale that could be administered on an ongoing basis to assess perceptions of climate over time. The GaBSCI is a broad measure that enables observation and exploration of students' school climate perceptions and how they relate to behavioural outcomes (White, La Salle, Ashby, & Meyers, 2014). Participants responded to a series of short statements, selecting from two response options; *always* to *never* or *yes* and *no*. Example items include: 'School is a place at which I feel safe' for the Safety scale; 'I feel successful at school' for the Teaching and Learning scale; and 'I know an adult at school that I can talk with if I need help' for the Relationship scale.

A study involving 130,986 sixth to eighth grade students in public middle schools in Georgia examined a three-scale structure using exploratory and confirmatory factor analysis (RMSEA=0.051, CI=0.049 to 0.052 and SRMR=0.041). The findings verified the factor structure of the nine-item survey which had an overall Cronbach's alpha coefficient of 0.71.

Whilst it is a scale that investigates the relationships between students' perceptions of the school climate and behavioural outcomes, it was not considered for this study. Though psychometrically sound, the assessment of three of the school climate dimensions was considered to be too narrow and the statements too brief to be meaningful. Given that this study sought to include a wider view of the school climate, this instrument was not used.

2.2.3.7   *School Climate Measure*

In direct response to the lack of psychometrically sound school climate instruments, Zullig, Collins, Ghani, Patton, Scott-Huebner and Ajamie (2014) developed and validated the School Climate Measure (SCM). The SCM involved scales from five historically sound measures: the California School Climate and Safety Survey (Furlong, Morrison, & Boles, 1991); National Education Longitudinal Study School Questionnaire (NELSSQ; US Department of Education, 1988); The School Development Program (SDP; Haynes, Emmons, & Ben-Avie, 2001); San Diego Effective Schools Student Survey (ESSS; San Diego County, 1984); and Comprehensive Assessment of School Environment (CASE; National Association of

Secondary School Principals, 1987). This new instrument included 39 items used to assess four dimensions of school climate, these being; positive student-teacher relationships; academic support; order and discipline; and school physical environment (Zullig, et al., 2014). Examples of items include: 'Teachers at my school help us children with our problems' for the Student-Teacher Relationship scale; 'Problems in this school are solved by students and staff' for the Order and Discipline scale; and 'My school buildings are generally pleasant and well maintained' for the School Physical Environment scale. Similar to previous research, this scale utilised a five-point Likert response scale ranging from *strongly agree* to *strongly disagree*.

A sample size of 20,953 Year 9 to 12 students from 61 Arizona public schools was used to examine the internal consistency, reliability and goodness of fit. The Cronbach alpha result was between 0.82 and 0.93 for the different scales. The goodness of fit was 0.940.

Whilst this scale has been found to be valid and reliable and is based on a strong theoretical framework, it was not utilised for this study. To ensure the study utilised a scale that included both school climate subscales and scales to measure the chosen variables (wellbeing, moral identity and resilience), it was important to select a survey that was an appropriate length. Based on this consideration, the SCM was not chosen due to its length and because it includes school climate dimensions that this study did not wish to explore (academic support and school physical environment).

2.2.3.8   *California School Climate and Safety Survey*

Originally developed by Furlong, Morrison and Boles (1991), the California School Climate and Safety Survey (CSCSS) was created to measure students' perception of the school climate and their personal safety. Based on a conceptual rather than a theoretical model, the CSCSS was created for school site safety-planning teams to use with students. The survey was designed to be simple to administer, inexpensive to use and psychometrically sound (Furlong, Greif, Bates, Whipple, & Jimenez, 2005). The CSCSS included 102 items, to assess three features of the school, these being perceptions of school danger, perceptions of school climate and reports of

victimisation (Furlong et al., 2005, p. 142). Specifically, the school climate section asked participants to use a five-point Likert scale, ranging from *strongly disagree* to *strongly agree*, responding to questions about feelings of safety, respect, support, and interpersonal relationships at their school. Sample items include; 'Adults at this school really care about all students' for the Relational Supports scale; 'This school handles discipline problems fairly' for the Organisational Supports scale; and 'Students at this school are healthy and physically fit' for the Student Engagement Behaviours scale.

Using a sample size of 9,743, six to 12 grade students in 61 southern Californian schools, the instrument properties were assessed. Results of the principal component analyses (PCA) with varimax rotation showed 11 factors with eigenvalues over 1.0. After the exploratory factor analysis of the school climate section was conducted, 20 of the 48 items were eliminated due to their loadings (17 items did not load, and 3 items double-loaded) (Furlong et al., 2005).

For the purpose of this study, the CSCSS was not utilised as it has a narrow focus, only measuring two main dimensions of school climate (safety and social relationships). Additionally, it lacks a theoretical base and many of the items are worded negatively.

2.2.3.9   *Dyokan questionnaire*

The Dyokan questionnaire was developed by the Israeli Ministry of Education to examine students' perceptions of the degree to which a high school creates a meaningful environment for identity development. The questionnaire was based on the theoretical model that postulated that when adolescents perceive their high school environment as high in characteristics that are theoretically supportive of positive identity formation, they will be more confident about their ability to cope with future identity-related challenges and they will report greater engagement in exploration (Rich & Schachter, 2012, p. 6).

The Dyokan questionnaire consisted of eight scales. Examples of the scales included: teacher caring, teacher role model, affirming student exploration and agency,

meaning studies and confidence in identity. Participants responded to Dyokan items using a six-point agreement scale ranging from *agree very much* to *disagree very much*. Examples of items include: 'Students in our school can count on each other' for the Social Climate scale; and 'School encourages students to get involved with social and ideological concerns and not only academic studies are considered important' for the Cultivation of the Whole Student scale.

The reliability of the Dyokan scales was established over 6 years, drawing on a sample size of 150 schools and over 20,000 students and utilising factor analytic techniques (Rich & Schachter, 2008). Structural equation modelling (AMOS 6.0) (Arbuckle, 2005) was used to test the fit of the model and estimate the strength of the relationships within the model. Results indicated a good fit of the model and the data (χ^2=3.96, p<0.56; CFI=1.0, RMSEA=0.000, and RMR=0.004).

As this scale was designed for use in Israeli religious schools, the language, complexity and length of some of the items were considered unsuitable for use with adolescents.

2.2.3.10   *What's Happening in This School Survey - WHITS*

The What's Happening in This School Survey (WHITS), developed by Aldridge and Ala'i (2013), was based on a theory and research findings (Ramelow, Currie, & Felder-Puig, 2015). The questionnaire includes 49 items, with eight in each of the six dimensions of school climate (Aldridge & Ala'i, 2013). Designed for use with Year 8 to 12 students, the language was selected to facilitate ease of understanding (Ramelow, Currie, & Felder-Puig, 2015). Participants responded to items utilising a five-point Likert scale, ranging from *almost never* to *almost always*. Examples include: 'At this school I feel welcome' for the School Connectedness scale; 'I can report incidents without others finding out' for the Reporting and Seeking Help scale; and 'At this school rules make it clear that certain behaviours are unacceptable' for the Rule Clarity scale.

The WHITS has been reported to have good reliability and validity, having fulfilled all aspects of construct validity, as outlined in Trochim and Donnelly's (2006)

construct validity framework (Aldridge & Ala'i, 2013). Utilising a sample size of 4067 high school students from eight schools in Australia, the WHITS was found to have a clear seven-factor structure using principal axis factor analysis. Further, the internal consistency reliability ranged from 0.89 to 0.91 for different scales.

As suggested by Ramelow, Currie and Felder-Puig (2015), it is important to consider the audience when selecting an instrument. In selecting the instrument for this study, careful consideration was given to the audience, language/terminology used, length of survey and ease of use. Based on these considerations, the WHITS was chosen to measure school climate for this study. Moreover, for this study, it was important to use a scale that was based on a strong theoretical framework and published within the last ten years, as scientific rigor in measurement development has change over time (Cohen, McCabe, Michelli, & Pickerel, 2009; Kallestad, 2010). Finally, when selecting an instrument, consideration was given to its reported reliability and validity, with particular focus on past studies involving Australian adolescents.

Given the focus of this study is to investigate the relationship between school climate dimensions and student wellbeing, resilience and moral identity, a review of each student outcome is now provided below.

2.3   Wellbeing

As the focus of this study was to investigate a student's wellbeing in relation to their school climate, it was important to review wellbeing research. This study drew on extended past research, and thus the researcher in this section explores: the definition of wellbeing (Section 2.3.1); past research related to wellbeing (Section 2.3.2) and, in particular, research related to the influence of the school climate on wellbeing (Section 2.3.3); and past instruments used to assess wellbeing (Section 2.3.4).

2.3.1   *Defining wellbeing*

In 1930, Menninger, defined mental health as "the adjustment of human beings to the world and to each other with the maximum of effectiveness and happiness" (Menninger, 1930, p. 1). Nearly 20 years later, the World Health Organisation

(WHO) defined health as "not merely the absence of disease, but in terms of wellness, that is, physical, mental and social wellbeing" (WHO, 1948, p.1).

Over the years, wellbeing has been defined utilising frameworks that are based on both deficit (Doyal & Gough, 1991) and positive (Hamilton & Redmond, 2010; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009) perspectives. As Graham and Fitzgerald (2011) states, the wellbeing definition has shifted from a deficit/illness focus to a positive wellness focus that also encompasses potential personal strengths and assets' (Hamilton & Redmond, 2010). The explanation for this shift can be, in part, attributed to the emergence of positive psychology (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009) along with ecological theories of child growth and development (Bronfenbrenner & Morris, 1998). This current research has viewed wellbeing using a positive framework and drawn on Ryan and Deci's (2001) definition of wellbeing as "optimal psychological feeling and functioning" (p. 142), or more simply, the combination of feeling good and functioning well. Wellbeing is a complex construct that is deeply embedded in context, and concerns optimal experience and functioning. It is framed by the eudemonic approach which conceptualises wellbeing in terms of the degree to which a person is fully functioning, focusing on meaning and self-realisation. This study chose this approach over the hedonic approach (wellbeing defined in terms of pleasure attainment and pain avoidance, and focused on happiness, Ryan & Deci, 2001), as the research aimed to measure a student's ability to function within a school context. Concurrently, this study approaches the subject from an a priori position based on based on theorising and past research.

2.3.2   *Past research on wellbeing*

Early research on wellbeing was largely focused on objective measures of "economic conditions, housing, education and welfare indicators" (King, Renó, & Novo, 2014); however, as the concept of wellbeing evolved, so too did the research. In the 1960s, Bauer (1966) introduced a new wellbeing theory that was more complex and multidimensional and included subjective and ecological or objective components (King, Renó, & Novo, 2014). Research that followed reflected this new holistic understanding of wellbeing and sought to measure wellbeing as a multi-dimensional,

dynamic construct (Andrews & Withey, 1976; McGregor, 2004; Nussbaum, 2003; Gough, 2004; Sen, 1985).

Broadly speaking, the research that followed focused on measuring two components of wellbeing, objective and subjective (hedonic and eudemonic) (Diener, Emmons, Larson, & Griffin, 1985; Ryff & Keyes, 1995). The objective dimensions of wellbeing that were measured included various physical and social attributes of an individual's life such as income, education and health (King, Renó, & Novo, 2014). These dimensions were often measured by frequency or quantity and drew on largely quantitative data (Cobb & Rixford, 1988). The subjective dimensions of wellbeing that were measured included an individual's thoughts, feelings and level of satisfaction with their life. Additionally, this research sought to measure an individual's wellbeing based on their psychological responses, such as "life satisfaction, autonomy, mastery, social connectedness, and personal security" (King, Renó, & Novo, 2014, p. 683). Measuring the subjective dimension of wellbeing became a strong focus in this field of research (Bradburn, 1969; Easterlin, McVey, Switek, Sawangfa, & Zweig, 2010; Inglehart, Foa, Peterson & Welzel, 2008; Kahneman & Krugeger, 2006; Ryff & Keyes, 1995) and often employed qualitative approaches (Camfield, Crivello & Woodhead, 2009; Gasper, 2004).

In general, adolescent wellbeing research has focused on five domains: physical, psychological, cognitive, social and economic (Pollard & Lee, 2003), recognising the multidimensional nature of the construct and therefore measuring specific indicators. Initially the research focused on negative or deficit indicators; disorders, deficits and disabilities (Pollard & Lee, 2003). However, in more recent times, there has been a significant shift from a deficit focus to an emphasis on researching the positive attributes of children (Seligman & Csikszentmihalyi, 2000).

2.3.3   *Past research on wellbeing and school climate*

Over the past 50 years, there has been a growing recognition of the role of a school in the development of students' wellbeing. In fact, in the 1990s, researchers Ramsey and Clark (1990) suggested that a student's academic achievements were of lesser importance than wellbeing. While this was not necessarily a commonly held belief at

the time, it did draw attention to the place of wellbeing in a school. Initially child development theorists focused mainly on children's physical health and health education (Konu & Rimpela, 2002), but through research the interpretation of the concept of health has broadened.

In 1993, Olweus explored the impact of a school climate on a student's wellbeing and found that school climate could influence the psychological wellbeing of students (1993). Further, the Ottawa Charter (WHO, 1986) and the Jakarta Declaration (WHO, 1997) highlighted the significance of the setting in the development of an individual's health.

As the understanding and thus expectation of a school climate's impact on student wellbeing developed, so did the introduction of a number of school health programs. These school health programs explored various dimensions of a school and the potential relationship they had on a student's wellbeing, including such elements as school conditions, social relationships and organisational aspects (Konu & Lintonen, 2005). Early researcher Samdal (1998) found that the most important predictors of students' subjective wellbeing were the support they received from their teachers and peers, and the realistic expectations place on them. Furthermore, Savolainen, Taskinen, Laippala, and Huhtala (1998) found that significant relationships existed between a student's wellbeing and dimensions of the school, including the school climate.

As research into school climate and student wellbeing expanded, so too did the recognition of the potential of schools to enhance student wellbeing (Rowling & Rissel, 2000). More recent research found schools to be positive institutions that enhance health and enable human and social development (Seligman & Csikszentmihalyi, 2000). Research in this field has found strong and consistent relationships between the school climate and students' emotional wellbeing (Virtanen, Kiviimaki, Luopa, Vahtera, Elovainio, Jokela & Pietikainen, 2009), suggesting that a number of dimensions (such as school structure, disciplinary climate, quality of relationships) can predict student health and wellbeing outcomes (Saab & Klinger, 2010). Overall, these findings suggest that students' health and

wellbeing can be improved through targeted school climate interventions that include relational supports, safety and inclusive structures.

Given that research has provided a growing body of evidence to suggest that school climate can influence the mental health and wellbeing of children, which in turn is correlated to an individual's economic and emotional wellbeing later in life (Gibbons & Silva, 2011; Heckman, Stixrud, & Urzua, 2006), it is not surprising that in Australia, the implication of these findings are reflected in recent policy initiatives. These policies include: the Melbourne Declaration on Educational Goals for Young Australians (MCEETYA, 2008); the National Framework in Values Education, 2005; and National Mental Health initiatives such as *Mind Matters* (Commonwealth of Australia, 2010).

My review of the literature indicates that while there has been some significant research over the last decade related to wellbeing, there is limited research specifically related to an inclusive school climate and its impact on a student's wellbeing. Therefore, further studies focusing on how a school climate can have a positive, long lasting effect on students, and on exploration of the specific school climate dimensions that influence student wellbeing would be of benefit. My study addresses this gap in the literature and informs practical attempts by schools to improve student wellbeing by examining the relationships between specific dimensions of a school climate and a student's wellbeing. In response to the need to explore the relationships more deeply, this study identifies school climate dimensions that impact on student wellbeing either directly or indirectly.

2.3.4 *Instruments developed to measure wellbeing*

Over the past decade there have been a number of instruments developed to measure a range of aspects related to wellbeing. In the main, early instruments were aimed at measuring features of wellbeing based on the absence of distress (McDowell, 2010) and, therefore, tended to include checklists of behavioural and somatic symptoms of distress. As the understanding and definition of wellbeing evolved, research related to wellbeing sought to assess not only poor health but also positive mental health. These scales have recorded affective responses, focusing on participants' self-reports

of feelings associated with their daily experiences. From the 1960s, the definition of wellbeing evolved to define wellbeing in terms of morale and life satisfaction. Research reflected this new understanding with the development of scales designed to measure psychological wellbeing from a positive perspective.

More recent research related to wellbeing has roughly fallen into two main categories that measure wellbeing from either a hedonistic or a eudemonistic tradition (Ryan & Deci, 2001; Waterman, 2001). Scales based on the hedonic perspective generally sought to measure wellbeing objectively, rather than assessing separate aspects of wellbeing. For example: Neugarten, Havighurst and Tobin (1961) developed the Life Satisfaction Index; Bradburn (1965) developed the Affect Balance Scale; and Diener Emmons, Larson and Griffin (1985) developed the Satisfaction with Life Scale.

The eudemonic perspective shifts the focus of research to subjective or psychological wellbeing, "emphasising continued personal growth and adaptation, and holding virtue and doing what is right as values" (McDowell, 2010, p. 71). Examples of these surveys include an eight-item Flourishing Scale and twelve-item Scale of Positive and Negative Experience (SPANE) by Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi and Biswas-Diener (2010).

This section provides an overview of some historically important and contemporary instruments, including: Life Satisfaction Index (Section 2.3.4.1); Affect Balance Scale (Section 2.3.4.2); Satisfaction With Life Scale (Section 2.3.4.3); The Flourishing & Positive and Negative Experience Scale (Section 2.3.4.4); The Personal Wellbeing Index (Section 2.3.4.5); Personal Wellbeing Index — School Children (Section 2.3.4.6); Ryff Psychological Well-Being Scale (Section 2.3.4.7); Emotional Wellbeing Scale (2.3.4.8), and; WHO-5 (2.3.4.9).

2.3.4.1   *Life Satisfaction Index*

Constructed by Neugarten, Havighurst and Tobin (1961), the Life Satisfaction Index (LSI) was developed to identify successful aging by recording general feelings of wellbeing among older people. Based loosely on the eudemonistic perspective, the LSI was one of the earliest and most widely used scales (McCulloch, 1992) that

measured satisfaction, morale and wellbeing in later life. The LSI was made up of twelve positive and eight negative items that were responded to using a three-point Likert scale of *agree, disagree* and *uncertain*. Items include, 'As I grow older, things seem better than I thought they would be' for the positive items, and 'When I think back over my life, I didn't get most of the important things I wanted' for the negative items.

Whilst the LSI has been used extensively, factor models of the construct of wellbeing have shown mixed results (Helmes, Goffin, & Chrisjohn, 1998). In essence, the LSI scale has been found to have a weak factor structure and the theoretical model of 'life satisfaction' was reported to need additional refinement. Furthermore, only two of the ten models proposed for the LSI were found to fit reasonably well (Helmes, Goffin, & Chrisjohn, 1998).

Based on the poor construct validity in past research, the LSI was not considered for use in this study. Additionally, as this scale was intended for an aging population, the items and language were inappropriate for use in this study.

2.3.4.2   Affect Balance Scale

The Affect Balance Scale (ABS) was developed by Bradburn (1965) to measure happiness or general psychological wellbeing. Bradburn's scale was based on his hypothesised two-dimensional model of psychological wellbeing; that is, an individual's psychological wellbeing is reliant upon not only the absence of negative experiences, but also on the experience of positive mental health (Berg, 1975; Jahoda, 1958; McKennell, 1973; Harding, 1982). At the time, this scale was considered to be innovative, as it included both positive and negative affect questions, and therefore was used extensively in the field of wellbeing research. However, although it was used widely, there were concerns that Bradburn's two-dimensional model was oversimplified (Cherlin & Reeder, 1975).

The ABS was made up of 10 items, five of which focused on the positive aspects of wellbeing, whilst the other five items reflected the opposing negative aspects. Items were responded to utilising a three-point Likert scale of *often, sometimes* or *never*,

each reflecting on specific experiences within the 'last few weeks'. Examples of items measuring positive aspects of mental health queried affects such as: 'Particularly excited or interested in something', and 'Proud because someone complimented you on something you had done'. Negative affect items queried include: 'Very lonely or remote from other people', 'Bored', and 'Upset because someone criticised you'.

According to Warr (1968) and Kushman and Lane (1980), the ABS has been comprehensively validated in social research, reporting an internal consistency reliability of 0.60 and 0.75 for individual scales. In two studies, one involving a British sample of 932 students (Harding, 1982), and another involving an American sample of 2736 students Bradburn (1969), the positive and negative affect scales were both reported to be equally good predictors of psychological wellbeing.

Whilst this scale was considered reliable when used in past studies and the limited number of items were suited to the requirements for a short adolescent scale on wellbeing, it was not chosen for this study. Essentially the theoretical framework for the ABS did not resonate with the theoretical framework of this current study as it explored the absence of ill-being as an indicator for wellbeing.

2.3.4.3   *Satisfaction With Life Scale*

Based on the hedonic approach to wellbeing, the Satisfaction With Life Scale (SWLS) was developed by Diener (1984) to measure adults' global satisfaction with their lives. This five-item scale sought to assess subjective wellbeing from a positive and negative perspective, with the inclusion of questions around life satisfaction. Items are responded to utilising a five-point Likert scale ranging from *totally disagree* to *totally agree*, reflecting respondents' current satisfaction with their life in general. Examples of positive items include: 'In most ways my life is close to my ideal'; 'I am satisfied with my life'; and 'If I could live my life over, I would change almost nothing'.

Validation studies of the SWLS have confirmed that the scale has a high internal consistency and a single factor structure. Past studies have reported α coefficients of

between 0.79 and 0.89 (Compton, Smith, Cornish, & Qualis, 1996; Lucas, Diener, & Suh, 1996; Pavot & Diener, 2008). Research evidence also indicates that the SWLS captures the construct stability over time (Zanon, Bardagi, Layous, & Hutz, 2013). In a study involving a US sample of 241 university students and a Brazilian sample of 1388 university students, the validity of the SWLS across cultures was examined. Results confirmed good measurement precision ($\alpha=0.87$) but revealed that what constitutes 'a satisfying life' is a construct that is likely to vary considerable across countries and cultures (Schimmack, Radhakrishnan, Oishi, Dzokoto & Ahadi, 2002).

Despite the reliability and consistency of the SWLS, this scale was not selected for use in the current study. It was intended to measure the wellbeing of adults. As such, the items had a 'reflective focus on a life lived' and were not appropriate for this study involving adolescents.

2.3.4.4 The Flourishing Scale

The Flourishing Scale was developed to assess "psychological flourishing and feelings – positive feelings, negative feelings, and the difference between the two" (Diener et al., 2010, p. 143). The Flourishing Scale (FS) was developed to assess psychological flourishing and to complement other existing measures of wellbeing. According to Hone, Jarden and Schofield (2014), psychological flourishing can be conceived "as a social-psychological prosperity incorporating important aspects of human functioning" (p. 1031). The scale assessed eudemonic dimensions of wellbeing based on the idea of human flourishing (Diener, et. al, 2010). The FS includes eight items which measure an individual's perception of "success in areas identified as important for psychological flourishing, such as relationships, self-esteem, purpose and optimism" (Hone, Jarden, & Schofield, 2014, p. 1034). Positively worded, each item of the FS is responded to using a seven-point Likert scale ranging from *strong disagreement* to *strong agreement*. Examples of items include: 'I lead a purposeful and meaningful life'; 'I am optimistic about my future'; and 'I am competent and capable in the activities that are important to me'. In a study involving 4823 students in New Zealand, the results confirmed the high internal consistency reliability of the scale ($\alpha=0.91$).

One of the main strengths of the FS is that it is brief and worded simply. According to Sumi (2014) the FS also reflects the essential components of wellbeing espoused in recent theories. A limitation of this scale is that to date it has only been used with university students. As this study sought to measure school-aged students' perceptions, this scale was not considered for use.

2.3.4.5   *Personal Wellbeing Index - PWI*

The Personal Wellbeing Index (PWI), developed by Cummins, Eckersley, Pallant, Van Vugt, and Misajon (2003), is one of the most widely used measures of wellbeing. It has been translated into several languages and used by over 100 researchers in 50 countries. The PWI measures self-perception of life satisfaction as a whole in eight domains of satisfaction with life, including standard of living, health, achieving in life, relationships, safety, community-connectedness, future security, and religion/spirituality. Examples of items include: 'How satisfied are you with your health?' for the Health scale; 'How satisfied are you with how safe your feel?' for the Safety scale; and 'How satisfied are you with feeling part of your community?' for the Community Connectedness scale. Items are responded to using a 10-point format that ranges from *extremely satisfied* to *extremely dissatisfied*.

This scale has been found to be psychometrically sound, demonstrating good reliability, validity and sensitivity (Yiengprugsawan, Seubsman, Khamman, Lim, & Sleigh, 2010). Despite its strong theoretical framework, extensive use and sound performance, the PWI was not used as it included domains that are beyond the scope of this study.

2.3.4.6   *Personal Wellbeing Index - School Children*

The Personal Wellbeing Index — School Children (PWI-SC) developed by Tomyn and Cummins (2011), was designed as a parallel form of the adult PWI-A to measure subjective wellbeing. Based on the subjective wellbeing homeostasis theory (Davern, Cummins, & Stokes, 2007), the PWI-SC aimed to assess school children's life satisfaction across eight domains: standard of living, health, achieving in life,

relationships, safety, community-connectedness, future security and spirituality/religiosity (Tomyn & Cummins, 2011, p. 406). Respondents are asked to indicate their level of 'happiness' utilising an eleven-point 'end-defined' Likert Scale ranging from *very sad* to *very happy* (Tomyn, Tyszkiewicz, & Cummins, 2013).

According to Tomyn and Cummins (2011), the PWI-SC is a valid and reliable tool for assessing subjective wellbeing in Australian adolescents. A study involving 351 students aged between 12 and 20 years over a period of two years, indicated that the PWI-SC had sound psychometric properties, good inter-item reliability (Cronbach alpha of 0.82) and a one-factor structure that accounted for 48% variance.

Despite the validity and reliability of this scale when used with school aged children, this scale was not chosen for this study. The wording used in individual items was considered, at times, to be awkward and lengthy. For example, 'How happy are you about the things that you have? Like the money you have and the things you own?' Further, while the scale's theoretical framework was similar to the current study, it measured domains that are not relevant to the current study.

2.3.4.7   *Ryff Psychological Well-Being Scale*

Development of the Ryff Psychological Well-Being Scale (Ruini, Ottolini, Rafanelli, Tossani, Ryff, & Fava, 2003) was based on Ryff and Keye's theoretical and operational depiction of psychological wellbeing as a eudemonic construct (Ryff & Keyes, 1995). This scale has been previously validated in an Italian population and is based on an integration of mental health, clinical, and life span developmental theories (Kafka & Kozma, 2002).

Ryff Psychological Well-Being Scale is a self-rating, 18 item scale that covers the six areas of psychological wellbeing according to Ryff's (1989) model: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. Participants responded to the items using a six-point Likert scale that ranged from *agree strongly* to *disagree strongly*. Examples of items include: 'I am able to voice my opinions even when they are in opposition to the opinions of most people' for the Positive relations scale; 'I am good at managing

the many responsibilities of my daily life' for the Environmental mastery scale; and 'In general, I feel confident and positive about myself' for the Self-acceptance scale.

Past studies report low reliability for the PWB, with results for internal consistency reliability Cronbach alpha, ranging from 0.33 to 0.56 (Dierendonck, 2004). McDowell (2009) suggests that, whilst the PWB has shown much promise in the field of wellbeing research, it requires further refinements. Due to its low reliability and large number of items, this scale was not used for this study.

2.3.4.8   *Emotional Wellbeing Scale - EWS*

The Emotional Wellbeing Scale (EWS) is a Canada-specific scale developed as part of the 2006 Canadian Health Behaviour in School-aged children (HBSC) study. The purpose of this scale was to measure self-reports of emotional health utilising nine items. Participants respond to items using a five-point scale ranging from *strongly agree* to *strongly disagree* (Saab & Klinger, 2010). Examples of items include: 'I have confidence in myself'; 'I often feel helpless'; and 'I often feel left out of things'.

Whilst the scale shows adequate internal consistency (α=0.80) this scale was not utilised, because it requires further validation through future research (Saab & Klinger, 2010).

2.3.4.9 *World Health Organisation — WHO-5*

Originally developed by the World Health Organisation in 1998, the 28-item scale was later reduced to five items and named the WHO-5. This scale is a self-report instrument measuring subjective wellbeing. The WHO-5 has been translated into more than 30 languages and is among the most widely used questionnaires in both clinical practice and research (Topp, Ostergaard, Sandergaard, & Bech, 2015). The WHO-5 is based on the WHO framework of mental health which purports that health is not only the absence of illness but the presence of social, mental and physical wellbeing (WHO, 1998).

The WHO-5 measures positive mood (feeling relaxed and in good spirits), vitality (being active, and waking up fresh and rested) and being interested in things. The items of the WHO-5 are all positively worded. Example items include, 'I have felt cheerful and in good spirits', 'I have felt calm and relaxed' and 'My daily life has been filled with things that interest me.' Items are responded to utilising a five-point Likert scale ranging from *all of the time* to *some of the time*, based on how applicable each statement is for the last two weeks.

Past research has supported the one-factor structure of the WHO-5, when using (*n*=4027) both exploratory factor analysis (Love, Andersson, Moore, & Hensing, 2013) and confirmatory factor analysis (De Wit, Pouwer, Gemke, Delemarre-van de Waal, & Snoek, 2007). Drawing from numerous studies (Bech, Olsen, Kjoller, & Rasmussen, 2003; De Wit, Pouwer, Gemke, Delemarre-van deWaal, & Snoek, 2007; Heun, Burkart, Maier, & Bech, 1999) the WHO-5 has been reported to be valid, consistent and reliable (IC 0.82 to 0.95).

Overall, the WHO-5 was chosen (and then adapted) for the current study, because of its strong validity, reliability, use of simple positive language and above all, its strong theoretical grounding. The adapted version included three extra items and sought to measure students' wellbeing based on how they had been feeling over the previous two weeks (Aldridge & Ala'i, 2013).

2.4 Resilience

Given that this study had a focus on resilience in relation to a school climate, it was important that past research on resilience was reviewed. In this section the researcher explores the definition of resilience (Section 2.4.1), and then reviews: literature related to resilience (Section 2.4.2); past research on resilience and school climate (Section 2.4.3); and past research on resilience and wellbeing (Section 2.4.4). Finally, the researcher reviews past instruments used to assess resilience (Section 2.4.5).

2.4.1 Resilience definition

Early research on psychological resilience adopted a pathogenic-based approach, defining resilience in terms of low levels of distress symptoms (Casella & Motta, 1990). In more recent times, resilience research has focused on the capacities for successful adaptation (Kimhi & Eshel, 2015) and thus defines resilience as "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (Masten, Best, & Garmezy, 1990, p. 426). Despite the depth of research related to psychological resilience, a clear definition has not been agreed upon (Fletcher & Sarkar, 2013; Masten, 2011). Although there is not a consensus on what resilience is, there is general agreement that it includes a capacity that allows a person to prevent, minimise or overcome adversity (Gilligan, 2009; Grotberg, 1997; Waxman, Gray, & Padron, 2003).

For the purpose of this study, resilience refers to the ability of an individual to "thrive in the face of adversity" (Connor & Davidson, 2003, p. 77). It embodies the personal qualities that enable an individual to cope with adversity, stress and achieve goals in the face of obstacles. In essence, resilience is identified as a personal resource that helps people stay clear of or bounce back from negative emotional experiences, ranging from mild anxiety to trauma and general depression (Tugade & Fredrickson, 2004). Recently, Panter-Brick and Leckman (2013) highlight that the lens on resilience has shifted from a focus on assessing risk or vulnerability, towards concentrated efforts to enrich strength or capability. Further to that point, Ungar, Ghazinour and Richter (2013) state that the focus for 'resilience enhancement' should therefore be on enhancing the social environment rather than on building the coping capacity of individuals.

Given this increased focus on students' health, and in particular resilience, and the purported capacity of school climate to positively affect this, this study examined further the relationships between them.

2.4.2 Past research on resilience

In the last 20 years, the majority of research on resilience within the context of adolescence has come from the mental health sector, utilising various definitions of resilience to guide their research (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). Essentially, research related to resilience has investigated two different elements of the construct; either the psychosocial outcomes and traits, or the protective mechanisms/processes (Ahern, 2006; Rutter, 2003). Whilst criticised for having numerous definitions and few psychometrically validated measures (Wagnild & Young, 1993; Jew, Green, & Kroger, 1999), outcome-focused research typically emphasises the maintenance of functionality (Olsson et. al, 2003) and generally was the focus of early studies. This early research sought to identify specific characteristics or traits and protective factors that enabled an individual to thrive despite adversity (Fletcher & Sarkar, 2013; Garmezy, 1991; Rutter, 1990; Werner & Smith, 1992), thus distinguishing between those who can adapt and those who succumb to hardship. Through this research, resilience was identified as an important construct, enabling individuals to maintain 'normal levels' of functioning (Bonanno, 2004). Since the early 1990s, the understanding of resilience has evolved, and process-focused research has emerged (Luthar, Cicchetti, & Becker, 2000). This research aims to understand the mechanisms and processes involved in minimising risk and enhancing successful adaptation by assessing the psychosocial resources of an individual, such as skills, capabilities and talents (Olsson et. al., 2003).

Over the past two decades, research on resilience has been conducted in various contexts and with various populations utilising different research designs. For example, resilience research has been conducted in business organisations (Riolli & Savicki, 2003), education sectors (Gu & Day, 2007), sporting arenas (Galli & Vealey, 2008) and communities (Brennan, 2008). Research has also included diverse population samples, including: populations that have experienced significant trauma (Bonanno, 2004; Leipold & Greve, 2009); adolescents (Kidd & Shahar, 2008); and, athletes (Fletcher & Sarkar, 2013). Longitudinal research on resilience generally focuses on an individual's resilience capacity, assessing pre- and post-adversity functioning (Bonnano, 2004). Resilience research, utilising self-report measures, has sought to measure resilience as a multidimensional construct to assess various

aspects of an individuals' life; for example, economic situation, physical health, morale, level of optimism, sense of humour, self-worth, self-efficacy and hope for a better future (Kimhi, Hantman, Goroshit, Eshel, & Zysberg, 2012). Whilst the validity of self-report measures has been questioned by researchers (Gamez, Kotov, & Watson, 2010), it has been argued that the cognitive approach is essential for measuring level of resilience (Kimhi & Eshel, 2015; Lazarus & Folkman, 1984).

Despite the various foci in resilience research, the key findings that have emerged from the literature are that high levels of psychological resilience have been associated with: positive emotions (Tugade & Fredrickson, 2004); wellbeing (Agbakwuru & Stella, 2012); and wholesome development (Cobb, 2001). Further, research suggests that psychological resilience is a multidimensional construct that can enhance an individual's psycho-social development and mediate between an individual, their environment and an outcome (Ahern, Ark, & Byers, 2008). Context and culture have emerged as an important influence on an individual's resilience (Lee, Kwong, Cheung, Ungar, & Cheung, 2010; Notlemeyer & Bush, 2013; Ungar, 2008).

2.4.3   *Past research on resilience and school climate*

Over the last decade, researchers have examined the relationship between context and resilience. Research findings indicate that "contexts play an important role in the development and enhancement of student resilience" (Morrison & Allen, 2007, p. 162). Research has shown that resilience can be fostered in many diverse ways and various environmental settings. More recently, research has seen the emergence of resilience research linked to recent developments in genomics and neuroscience (Masten, 2006). According to Lester, Masten and McEwen (2006), highly targeted interventions are being designed based on research into how experience influences the expression of genes that in turn shape development, brain plasticity and an individual's response to situations.

There is a growing body of research that indicates that aside from introducing specific resilience intervention programs in a school (Browne, Gafni, Roberts, Byrne, & Majumdar, 2004), the school climate can have a significant impact on developing

positive outcomes in student health. In essence, schools have shifted focus, moving from a deficit model, to an emphasis on resilience enhancement (Kristjansson, 2012; Maes & Lievens, 2003; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009; Sin & Lyubomirsky, 2009). Not surprisingly, all stakeholders are expecting more from educational institutions, as they want them to foster the holistic development of a child to enable them to cope with the rapidly changing world (Brophy, 2009; Flum & Kaplan, 2006; Harrell-Levy & Kerpelman 2010).

Past research has connected higher levels of resilience and wellbeing to positive school experiences (Baker, Dilly, Aupperlee, & Patil, 2003; Danielsen, Samdal, Hetland, & Wold, 2009; Stiglbauer, Gnambs, Gamsjager & Batinic, 2013; You, Furlong, Felix, Sharkey, & Tanigawa, 2008). However, identification of specific connections within this relationship have been difficult to identify. Regardless of this difficulty, there continue to be research findings that a child's development is heavily influenced by their school environment. For example, MacDonald and Validivieso (2000) report that the promotion of resilience is possible when there are developmental opportunities and emotional, motivational and strategic supports in schools. Likewise, Bernard (1993, p. 45) identified that resilience can be developed at school through three key mechanisms; "caring relationships; high expectations, and opportunities to participate and contribute".

Past studies have found that social support through relationships with both teachers and peers has protective effects on adolescents (Kaynak, Lepore, & Kliewer, 2012; Salzinger, Feldman, Rosario, & Ng-Mak, 2010). The significant role of adults in adolescent resilience development has been identified (Hurd, Zimmerman, & Xue, 2009), suggesting that teachers can not only act as 'protective buffers' but can be a confidant(e) and a positive example for students to model themselves on (Werner, 1990). Further, Bernat (2009) and Blasi (1984) argue that students manifest the core values of resilience (hope, optimism and success) when they have supportive teachers who care and help them be 'better people' (Bernat, 2009; Blasi, 1984). Aside from the influence of teachers, peer influence has been found to help shape a young person's social capital, offering both support and challenge. Overall, past research has shown that supportive social networks enhance the capacity of an individual to deal with life's challenges (Heatherton & Nichols, 1994; Wagnild &

Young, 1993), and according to Blum (1998) are among the best predictors of psychological resilience as they enhance an identified 'resilience trait' of social competence (Bernard, 1993).

There is a growing body of literature that suggests that high expectations coupled with the necessary support structures can be a powerful motivating influence on students' resilience (Neill & Dias, 2001). In fact, the development of resilience has been likened to the immunisation process (Rutter, 1987): "just as immunity to infections is gained through the controlled exposure to a pathogen (rather than avoiding the pathogen), so too, successful encountering of difficult challenges can provide a form of psychological inoculation/resilience" (Neill & Dias, 2001, p. 36). In other words, schools that have high expectations offer adolescents support to build resilience competencies, nurturing autonomy, self-belief, independence and problem-solving skills attributes, all of which have been found to present in the profile of a resilient child (Bernard, 1993).

Past research has revealed that resilience is enhanced through community participation and contribution (Vieno, Nation, Perkins, & Santinello, 2007). Essentially, these opportunities can empower individuals, enhancing a number of resilience traits such as optimism, goal orientation, self-efficacy, hope and aspiration (Checkoway, 2011; Ozer, Ritterman, & Wanis, 2010), and thus build their resilience. Additionally, Bernat (2009) found that schools who foster a hopeful outlook and offer opportunities for student participation have students who identified themselves a "resilient kids of hope" (p. 255).

Overall, past research suggests that student resilience is enhanced through supportive relationships with teachers and peers, involvement in school activities, and structures that reduce conflicts and difficulties (Alva, 1991). Given the recent research on resilience and the role of education, this study further identifies and explores the relationship a school climate has with a student's resilience.

2.4.4   Past research on resilience and wellbeing

Past studies have explored the relationship between resilience and wellbeing and found that resilience contributes to a student's wellbeing in both the short and long term (Agbakwuru & Stella, 2012). The results have indicated a positive relationship between resilience and self-esteem, self-confidence (Benetti & Kambouropoulos, 2006) and self-perception (Mak, Ng, & Wong, 2011). Resilient individuals have a number of competencies to draw on when faced with day by day adversities, and are therefore more likely to feel competent, able and healthy (Masten, Herbers, Cutuli, & Lafavor, 2008). In general, they have higher levels of hope and optimism, self-confidence, and positive world perception, all of which have been associated with positive wellbeing (Agbakwuru & Stella, 2012; Klohnen, 1996; Mak, Ng, & Wong, 2011; Tugade & Fredrickson, 2004; Werner & Smith, 1992; Yarcheski, Scholoveno, & Mahon, 1994; Zaleski, Levey-Thors, & Schiaffino, 1998).

Based on the review of literature, this study hypothesises that students' sense of resilience is related to their wellbeing.

2.4.5   Instruments developed to measure resilience

Over the past decade there have been a number of instruments designed and developed to measure certain aspects of resilience. In the main, the early instruments were aimed at measuring the protective factors or resources within an individual to ascertain whether the individual has a resilient personality. As the conceptualisation of resilience evolved, instruments began to measure resilience as a dynamic developmental process (Gucciardi, Jackson, Coulter, & Mallet, 2011; Luthar, Cicchetti, & Becker, 2000; Rutter, 2000) seeking to identify ways in which individuals successfully adapt in the face of adversity.

This section provides an overview of six historically important and contemporary instruments, including: The Resilience Scale (Section 2.4.5.1); Connor-Davidson Resilience Scale (Section 2.4.5.2); The Resilience Scale for Adults (Section 2.4.5.3); Adolescent Resilience Scale (2.4.5.4); Brief-Resilient Coping Scale (2.4.5.5); and The Resilience Scale — 15 item version (2.4.5.6).

2.4.5.1   The Resilience Scale

The Resilience Scale (RS), developed by Wagnild and Young (1993), assesses resilience in older women who had adapted successfully following a major life event, in terms of their personal competence and, acceptance of self and life. The RS framework drew on results from a 1987 qualitative study and a thorough literature review of resilience (Wagnild & Young, 1990). The 25-item RS measured five characteristics of resilience: perseverance, equanimity, meaningfulness, self-reliance and existential aloneness (Wagnild & Young, 1990). Participants responded to the items utilising a seven-point Likert scale, ranging from *strongly agree* to *strongly disagree*. Examples of these items include: 'I feel I can handle many things at once' for the Self-reliance scale; 'I seldom wonder what the point of it all is' for the Equanimity scale: and; 'I can usually find something to laugh about' for the Meaningfulness scale.

The validity, reliability and soundness of the RS was established by the results from twelve studies across a variety of settings and with diverse samples (Lundman, Strandberg, Eisemann, Gustafson, & Brulin, 2007; Nygren, Randström, Lejoklou, & Lundman, 2004; Wagnild, 2009; Wagnild & Young, 1993). The findings verified the factor structure of the 25-item survey, which had an overall Cronbach's alpha coefficient between 0.76 and 0.91, and a reliability coefficient of 0.75, confirming the scale's internal consistency (Resnick & Inguito, 2011).

Although considered to be one of the principal resilience questionnaires (Resnick & Inguito, 2011) the RS was not considered suitable for this study due to its overall focus on measuring resilience in elderly people. The questionnaire included items that directly addressed aspects of an elderly person's life, thus rendering it inappropriate for use with adolescents. Although not chosen for this study, the RS has been utilised in a number of countries, translated in over six other languages and has a focus on positive psychological qualities rather than deficits.

2.4.5.2   Connor-Davidson Resilience Scale

The Connor-Davidson Resilience Scale (CD-RISC), developed by Connor and Davidson (2003), assessed aspects of psychological resilience in terms of personal resources or qualities that contribute to positive adaptation to adversity. Based on Connor and Davidson's (2003) theoretical framework, the CD-RISC measures five dimensions of resilience: goal orientation, sense of humour, attachment, optimism and patience. The 25 items are rated on a five-point Likert scale ranging from *not true at all* to *true nearly all the time,* with higher scores reflecting more resilience. Example items include: 'You work to attain your goals' for the Goal Orientation scale; 'I am able to see the humorous side of things' for the Sense of Humour scale; and 'When things look hopeless, I don't give up' for the Optimism scale.

The CD-RISC has demonstrated good internal consistency (Cronbach alpha of 0.89), high test-retest reliability and the ability to distinguish between varying levels of resilience (Connor & Davidson, 2003). However, despite numerous studies utilising the CD-RISC, psychometric examinations of the factor structure have failed to support the originally hypothesised 25-item, five-factor model (Burns & Anstey, 2010; Campbell-Sills & Stein, 2007; Sexton, Byrd, & Von Kluge, 2010).

Whilst the CD-RISC has been used extensively, most of the studies utilising the CD-RISC use samples of patients with psychiatric disorders (Ahren, Kiehl, Lou Sole, & Byers, 2006). Given that this study utilised a 'general population' sample of adolescents, the CD-RISC was not considered suitable for the current study.

2.4.5.3   The Resilience Scale for Adults - RSA

The Resilience Scale for Adults (RSA), developed by Friborg, Hjemdal, Rosenvinge and Martinussen (2003), is a 37-item scale which assessed the protective factors that foster adult resilience. The five factors measured were personal competence*,* social competence*,* family coherence*,* social support and personal structure. Example items include: 'I can establish friendly relationships easily' for the Social Competence scale; 'Even in difficult situations, my family is optimistic' for the Family Cohesion scale; and 'I sustain my daily rules even in difficult situations' for the Structured

Style scale. Respondents rated items using a five-point Likert response format, from *strongly disagree* to *strongly agree.*

Initially, this scale was used only in the health and clinical psychology field in Norway, but has since been validated in Norwegian samples (Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003; Friborg, Hjemdal, Martinussen, & Rosenvinge, 2009; Hjemdal, Friborg, Stiles, Rosenvinge, & Martinussen, 2006) and Belgium samples (Hjemdal, et al., 2011). The results from each study indicate that the RSA has sound psychometric properties and is valid in Norwegian and French-speaking samples. Additionally, the RSA factor loadings were satisfactorily high (>0.40) and the five factor model fit was good (RMSEA=0.037; CFI=0.985; SRMR=0.077; and SB v2(485)=735, p<0.01).

Whilst the RSA has been extensively validated it was not chosen for this present study. To ensure the questionnaire was manageable for adolescents and reflective of the theoretical framework, it was important that the resilience scale was relatively short and was relevant to adolescents. Further, it was desirable to utilise a scale that had been designed for adolescents in Australia. For these reasons the RSA was not considered suitable for this study.

2.4.5.4   *Adolescent Resilience Scale - ARS*

The 21-item Adolescent Resilience Scale (ARS) was designed to measure the psychological features of resilient Japanese youth (Oshio, Kaneko, Nagamine, & Nakaya, 2003). The ARS drew on a number of key studies with resilience as a basis for their design (Wolin & Wolin, 1993; Eisenberg et al., 1997), which encompassed three factors: novelty seeking, emotional regulation, and positive future orientation.

Participants were asked to respond to a series of items using a five-point Likert scale between *definitely yes* to *definitely no*. Example items include 'I seek new challenges' for the Novelty Seeking scale, 'I think I have perseverance' for the Emotional Regulation scale and 'I am striving towards my future goal' for the Positive Future Orientation scale.

In a study involving 207 Japanese undergraduate youths, the instrument properties were assessed. Results of the confirmatory factor analysis showed that the coefficients alpha for the scale was 0.85, thus confirming its factor structure. Further, the results supported the construct validity of the scale (Oshio, Kaneko, Nagamine, & Nakaya, 2003).

The ARS was designed for Japanese youth and, to date, has only been validated in Japan. This scale was therefore not considered suitable, as it has not yet been validated with Australian adolescents. Additionally, it was designed to measure both resilience and internal psychological features, whereas this study only measures resilience.

2.4.5.5 Brief-Resilient Coping Scale

The Brief-Resilient Coping Scale is a 4-item scale designed to "measure tendencies to cope with stress in a highly adaptive manner" (Sinclair & Wallston, 2004). The four items in the BRSC reflect themes outlined in literature that encapsulate characteristics related to resilience: tenacity, optimism, creativity and a commitment to positive growth. This scale was designed to describe 'resilience characteristics' in a positive framework or pattern as described by Polk (1997).

Participants were invited to respond to four items through a five-point Likert scale ranging from *does not describe you at all* to *it describes you very well*. Examples of the four items include; 'I actively look for ways to replace the losses I encounter in life'; 'I believe I can grow in positive ways by dealing with difficult situations', and; 'Regardless of what happens to me, I believe I can control my reaction to it'.

Confirmatory factor analysis confirmed the uni-dimensional structure of the scale. The BRCS has a test-retest reliability of 0.71 and internal consistency reliability of a Cronbach's alpha coefficient of 0.68.

As recognised by the authors Sinclair and Wallston (2004), this scale only meets minimal reliability (0.70), stability and validity standards due to the brief nature of this scale. In essence, the length of scale, while initially attractive, diminished its

internal consistency and reliability, thus lessening its value for this study. Further, this scale was originally created to use with individuals suffering from rheumatoid arthritis. As such, the BRCS was not considered for use in this study.

2.4.5.6   *The Resilience Scale — 15 item version*

The Resilience Scale — 15 item version (RS15) developed by Neill and Dias (2001) was based on Wagnild and Young's (1993) Resilience Scale. All items are positively worded and are responded to utilising a seven-point Likert scale ranging from *strongly agree* to *strongly disagree*. Items include 'I am determined', 'I keep interested in things' and 'My life has meaning'.

Although the RS has only been used in a few studies (Neill & Dias, 2001; Wilks, 2008), the results confirm it to be a psychometrically sound measure (IC=0.91, factor loadings ranging from 0.52 to 0.75) that can maintain its properties across different populations (Wilks, 2008). It is similar to the original Resilience Scale in terms of 'soundness', whilst offering convenience with its brevity.

The Resilience Scale was chosen as it included published psychometrics (Gillespie & Allen-Craig, 2009; Wagnild & Young, 1993) and its concurrent validity has been reinforced by significant correlations between the scores and measure of morale, life satisfaction and depression (Wagnild & Young, 1993). Overall, given the reliability and validity of the RS-15 and its brief and positively worded items, this scale was considered suitable for this study. It was further modified to an eight item scale to suit high school students.

2.5   Moral identity

Given that this study draws on and extends moral identity research, this section reviews literature related to moral identity. Specifically, this section provides a definition of moral identity (Section 2.5.1) and a review of literature related to: past research on moral identity (Section 2.5.2); past research on moral identity and school climate (Section 2.5.3); and past instruments used to assess moral identity (Section 2.5.4).

2.5.1   *Moral identity definition*

The theoretical foundations of research related to moral identity can be traced back to Erikson's (1964) cognitive-development theory, proposing that an identity is grounded "in the very core of one's being, involves being true to oneself in action, and is associated with respect for one's understanding of reality" (Aquino & Reed, 2002, p. 1424). Twenty years on, Kohlberg's cognitive-developmental model of morality proposes that moral judgements help shape moral behaviour (Kohlberg, 1984). As research progressed, moral development was seen from a socio-cultural perspective, identifying how an individual's various interactions with their culture mediates their moral development (Cote & Levine, 2002; Kroger, 2007; Penuel & Wertsch, 1995; Sfard & Prusak, 2009; Tappan, 2006).

Hart et al.'s (1998) definition of moral identity as "a commitment to one's sense of self to lines of action that promote or protect the welfare of others" (p. 515), highlights the very nature of moral identity; the inner and outer focus on what is right; in other words, how our own judgment embodies social consensus. This perspective recognises that, along with moral reasoning, moral identity also helps shape moral behaviour (Reynolds & Ceranic, 2007). Essentially, the role of moral identity in moral development and behaviour is one of self-motivation and self-regulation that links moral judgment to action (Blasi, 2004; Damon & Hart, 1984; Erikson, 1964; Hardy & Carlo, 2011; Hart, Atkins, & Ford, 1998). It refers to the "extent to which people identify with, and are invested in, being a moral person and doing what is moral" (Hardy, Walker, Olsen, Woodbury, & Hickman, 2014, p. 45).

For the purpose of this study, moral identity is defined according to a social identity theory (Aquino & Reed, 2002) recognising that we learn moral discernment through our dialogue with significant others in our lives (Taylor, 1989; Taylor, 1991). According to Taylor (1989), the others in our lives can be both people and the communities of which we are part. The study reported in this thesis examines the potential impact of the school climate, which is part of the students' community, on the students' lives and their moral identity.

Piaget (1932) initially proposed a cognitive-developmental model in an attempt to address the why and when questions surrounding the degree to which an act of service performed towards another is linked to human welfare (Aquino & Reed, 2002). From the 1960s through the early 1990s, this research into moral psychology was extended and dominated by Kohlberg's developmental theory of moral reasoning in relation to justice issues (Lapsley & Narvaez, 2005). In more recent years, moral psychology has shifted focus to explore other effects besides moral reasoning (Haidt, 2001). In 1980 an important step was taken towards broadening the scope of moral development research and establishing connections with neighbouring areas of psychological inquiry when Blasi (1980) published his review article on the relationship between moral cognition and moral action (Lapsley & Narvaez, 2005). Consistent with Blasi's ideas, Colby and Damon (1992) emphasised moral identity as the unity of the moral and self-systems; this, highlighted other research that identified educational settings as an important influence (Gee, 2000; Holland, Lachicotte, Skinner, & Cain, 1998; Sfard & Prusak, 2009; Wenger, 1998). Past researchers have explored specific identity domains such as ethnic identity (Banks, 2005), civic identity (Youniss & Hart, 2005), religious identity (King & Roeser, 2009) and career identity (Flum & Blustein, 2000). However, it is only recently that educational researchers have explored the relationships between school elements, identity development, and to a much lesser degree, moral identity development.

More recent studies have explored the relationship between identity development and socio-cultural settings (Holland, Lachicotte, Skinner, & Cain, 1998; Lave & Wenger, 1991; Schachter, 2005; Vygotsky, 1978), highlighting significant connections and inter-relationships between personal, social, critical, and cultural situational factors and identity. As Faircloth (2012) states, identity can be seen as a type of ongoing negotiation of participation, shaped by, and shaping in response, the context(s) in which it occurs. Similarly, Holland et al. (1998), Fairbanks and Ariail (2006) and Wortham (2006) have found that each particular context offers a unique set of experiences, encounters, challenges and practices that in turn shape an individual's understanding of themselves.

2.5.2 Past research on moral identity

Early research on moral identity reflected two distinct viewpoints: the character perspective and the social-cognitive perspective. Moral identity as conceptualised by the character perspective finds its foundations in Blasi's (1984, 2005) self-model theory. This model is based on the theory that moral identity is formed through "the centrality of the moral self and the motivational potency of the desire to maintain self-consistency" (Shao, Aquino, & Freeman, 2008, p. 515). Blasi's (1984) conceptualisation was adopted by other theorists and provided a foundation for the development of future moral identity theories (Colby & Damon, 1992; Damon & Hart, 1992; Hart, Yates, Fegley, & Wilson, 1995).

In contrast, the theory of moral identity based on the social cognitive conceptualisation (Aquino & Reed, 2002; Aquino, Freeman, Reed, Lim & Felps, 2009; Lapsley & Narvaez, 2004) hypothesises that the moral self-concept is influenced by situational cues (Bargh, Bond, Lombardi, & Tota, 1986). Similarly, Keller and Edelstein (1993) and Keller, Fang, Fang, Edelstein, Cecora, and Eckert (2004) suggest that the development of an adolescent's moral self is directly influenced by their peer relationships and interactions with close friends.

Regardless of which moral identity theoretical perspective is adopted, past studies have aimed to measure moral self-concept using different approaches. Some studies have sought to measure moral identity, by identifying the extent to which individuals are committed to pro-social behaviours (Hart, Atkins, & Ford, 1998; Matsuba & Walker, 2005; Nasir & Kirshner, 2003; Reimer, 2003). Other studies have measured moral identity based on an individual's involvement in community services, positing that moral identities are linked to moral actions (Damon, 1999; Pratt, Hunsberger, Pancer, & Alisat, 2003; Youniss & Yates, 1997). Overall, past studies have shown a link between moral identity and moral actions (Aquino & Reed, 2002; Hardy, 2006; Reynolds & Ceranic, 2007) and suggest that "morality is inherently social" (Shao, Aquino & Freeman, 2008, p. 524).

In more recent research, Frimer and Walker's (2009) reconciliation model of moral identity conceptualises moral identity as an "integration of self and morality"

(Krettenauer & Hertz, 2015, p. 139). This model posits that moral identity development is reliant on the duality of human motivation: agency and communion. In essence, the more reconciled these two dimensions are, the more morally mature an individual is (Frimer & Walker, 2009; Walker, 2014).

In summary, the conceptualisation of moral identity has differed over the years, but a key commonality has emerged from past studies: moral identity is not static, rather, it develops within the social contexts and relationships an individual interacts with (Lerner, & Schmid-Callina, 2014; Krettenauer & Hertz, 2015; Mascolo, 2014).

2.5.3   *Past research on moral identity and school climate*

Based on this understanding of the interplay between identity formation and context it is not surprising that, in recent research, moral development and moral action have been shown to be embedded in community contexts. As Power (2004, p. 52) suggests, the community plays a crucial role in the development of an individual's moral identity, enabling a person to "experience a sense of obligation or responsibility to act" within a cultural setting. In essence, identity development is considered to be a product of the interactions with environmental/community intra-personal, interpersonal factors (Kroger, 2007; McCaslin, 2009).

Given these findings, and that students spend a significant amount of time in schools, it appears that the school community plays a significant role in continued moral development. Whilst there has not been extensive theory or research into the relationship between student moral identity development and school climate, it makes sense to believe there a relationship exists between them (Schachter, 2005). This study builds on past research and aims to help bridge the gap in moral identity formation research linked to school climate.

It is apparent from this review that previous studies have largely focused on the relationships between school climate and student wellbeing. There is less research that explores other student outcomes related to holistic development, specifically moral identity. To address this gap, this study will contribute to the field of school

climate research by building on past findings and offering potentially new insights into other student outcomes of resilience and moral identity.

2.5.4 *Past research on moral identity and wellbeing*

Although the relationship between an individual's identity and their wellbeing has been explored, there is only limited research on the influence on moral identity and wellbeing. Past studies that have explored the central relationship between moral identity and wellbeing have found a number of positive outcomes from this relationship: motivation towards positive prosocial behaviour (Aquino & Reed, 2002; Barriga, Morrison, Liau, & Gibbs, 2001); healthy living (Hardy et. al., 2013); higher self-esteem (Higgins-D'Alessandro & Power, 2005); lower levels of social anxiety (Wowra, 2007); and health risk behaviours (Hardy, et. al., 2013). Furthermore, Roeser, Galloway, Casey-Cannon, Watson, Keller and Tan (2008) found that moral identity coupled with student, physical and peer identity can predict wellbeing.

Drawing on past research, and given that the combination of identified outcomes is likely to increase an individual's sense of wellbeing, this study hypothesises that a students' moral identity influences their wellbeing.

2.5.5 *Instruments developed to measure moral identity*

Over the past decade there have been limited instruments designed, developed and utilised to measure specific aspects of an individuals' moral identity in a community or educational setting. Whilst for the wellbeing and resilience areas, several scales were reviewed to find the most suitable one, moral identity is a new area and as such there are only a few scales that exist. As such this section, provides an overview of three instruments: the Moral Identity Internalisation Scale (Section 2.5.5.1); the Moral Ideal Self Scale (Section 2.5.5.2); and the Moral Identity Scale (Section 2.5.5.3).

2.5.5.1   Moral Identity Internalisation Scale

The Moral Identity Internalisation Scale (MIIS) developed by Aquino and Reed (2002) sought to measure the potential link between central moral traits and an individual's self-concept. Specifically, this scale measured moral traits that are central to the self-concept (internalisation). The MIIS was based on Kihlstrom and Cantor's (1984) social cognition theory and the studies by Lapsley and Lasky (2001) and Walker and Pitts (1998), whose research supported the concept that moral traits are associated with the higher order construct of moral identity. The item construction was based on Erikson's (1964) theory of the properties of identity, and moral educators' views on common traits (Damon, 1977).

The 10-item scale with nine stimulus traits required participants to respond to a series of statements whilst reflecting of the list of traits, utilising a five-point Likert scale ranging from *strongly disagree* to *strongly agree*. Examples of traits include caring, compassionate, fair, honest and kind. Examples of items include: 'It would make me feel good to be a person who has these characteristics'; and; 'I am actively involved in activities that communicate to others that I have these characteristics'. The scale showed acceptable internal consistency (Cronbach's alphas of 0.77) in a pilot study involving American 347 adults.

Despite its strong theoretical framework and proven validity, the MIIS was not considered suitable for this study. The reasons include the complex design, involving a lists of traits and statements, and the lack of evidence of its validity and reliability when used with adolescents.

2.5.5.2   Moral Ideal Self Scale

The 20-Item Moral Ideal Self Scale (MISS) developed by Hardy, Walker, Olsen, Woodbury and Hickman (2014) sought to assess an adolescent's moral ideal self by identifying desired traits and potential relationships with outcomes. It is based on the theory that an individual's moral identity can be measured by the degree to "which one hopes to be a moral person" (Hardy, Walker, Olsen, Woodbury, & Hickman, 2014, p. 53).

Participants were asked to rate 20 traits according to how much it described the type of person they aspired to be, utilising a seven-point Likert Scale of *not at all* to *very much*. Examples of traits include honest, caring, and knows right from wrong.

This scale has shown good reliability, factor structure, and validity in the original scale (CFI=0.93) when used with 893 adolescents in America. Further, its length and use of everyday language strengthened its suitability for this study. However, this study sought to identify a students' moral identity by examining a set of actions (Aquino & Reid, 2002) rather than a set of traits. For that reason, the MISS was not considered for this study.

2.5.5.3   *Moral Identity Scale*

The Moral Identity Scale (MIS) developed by Aldridge, Ala'i and Fraser (2016), was based on Erikson's (1968) theory of the connection between moral self and actions. More specifically, given an individual will endeavour to maintain a level of consistency between their actions and what they believe is moral, it is therefore possible to assess moral identity through moral actions (Aquino & Reid, 2002).

The MIS assessed students' responses to a set of actions that are potentially associated to moral actions. The eight-item scale used a five-point Likert scale of *almost never* to *almost always.* Examples of items include: 'When I see someone having a problem, I offer to help'; and 'I speak up when someone is bullied'.

The MIS was chosen for this study because of its proven reliability and validity (Cronbach alpha reliability of 0.94) with adolescents in Australia (N=4067) (Aldridge, Ala'i, & Fraser, 2016), its length, and its appropriateness of the language for use with adolescents.

2.6   **Chapter summary**

This study examines the relationships between school climate and students' wellbeing, moral identity and resilience, and the interrelationships between these

outcomes. Accordingly, in this chapter the researcher reviews literature related to school climate, student wellbeing, resilience and moral identity.

Section 2.2 explores the various definitions of school climate and the past research associated with this concept. Past research has drawn on various definitions of school climate; however, despite the variation, a commonality exists. The definitions of school climate all include a recognition of factors that affect the macro-environment (Glover & Coleman, 2005). Considering this and the review of past definitions, this study defines school climate as the "norms, values and expectations that support people feeling socially, emotionally, and physically safe" (Cohen, McCabe, Mitchelli, & Pickeral, 2009, p. 182).

Many studies have explored various school climate dimensions, highlighting the multi-faceted aspect of this concept (Anderson, 1982; Brand, Felner, Shim, Seitsinger & Dumas, 2003; Maslowski, 2006; Murray, 1938). Four key school climate dimensions that have been the main focus of past research are reviewed and important findings associated with them are highlighted. The four dimensions reviewed are: safety (Stockard & Mayberry, 1992; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013); relationships (Resnick, Harris & Blum, 1993; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013); teaching and learning (Cohen, 2001; Wang, Haertel, & Walberg, 1993); and environmental-structural (Anderson, 1982; Stewart, 1979). Although past research has explored school climate dimensions, there is a dearth of research exploring the relationship between these dimensions and student wellbeing, moral identity and resilience. Therefore, this study addresses the research gap by investigating these potential relationships.

To conclude this section, a brief review of ten historically-significant school climate instruments is provided and an instrument, the WHITS (Aldridge & Ala'i, 2013), is identified as most appropriate for this study.

In the following section, the researcher provides a definition of wellbeing and an overview of past research related to wellbeing, with a review of past instruments. Research has used a number of wellbeing definitions both from a deficit framework (for example: Doyal & Gough, 1991) and from a positive one (for example:

Hamilton & Redmond, 2010; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). In research, wellbeing has been conceptualised as hedonic (defined in terms of pleasure attainment and pain avoidance and focused on happiness, Ryan & Deci, 2001), or eudemonic (defined in terms of "life satisfaction, autonomy, mastery, social connectedness, and personal security" (King, Renó, & Novo, 2014, p. 683)). After reviewing the literature, this study chose to define wellbeing within a positive framework, drawing on Ryan and Deci's (2001) wellbeing definition, "optimal psychological feeling and functioning" (p. 142).

Since this study sought to explore the potential relationship between school climate and student wellbeing, a review of literature with this focus was provided. Early research by Olweus (1993) identified that social context was an important influence on an individual's wellbeing and therefore drew connections with school climate and student wellbeing. Research that followed explored how a school climate contributed to a student's wellbeing in terms of their poor health or positive mental health. This review indicated that there is a gap in research specifically related to an inclusive school climate and its relationship with student wellbeing.

To conclude this section, a brief review of nine historically-significant 'wellbeing' instruments is provided and an instrument, the WHO-5 Wellbeing Scale (WHO, 1998) is identified as most appropriate for this study because of its strong validity, reliability, use of simple positive language and above all, its strong theoretical grounding.

In the next section, the researcher explores the definition of resilience and past research related to resilience, including a review of past instruments. Early research in this field sought to measure an individual's resilience by assessing risk and the presence of low levels of distress. In more recent times, resilience has been measured by assessing an individual's capacity for successful adaptation. Regardless of which definition was utilised, a common finding in past research was that context and culture is an important influence on an individual's resilience (Lee, Kwong, Cheung, Ungar, & Cheung, 2010; Notlemeyer & Bush, 2013; Ungar, 2008). Accordingly, since this study explores the relationship of school climate and resilience, a review of past research in this field follows. Research indicates that a school climate can have a

significant influence on a student's resilience. Specifically, high expectations coupled with relevant support structures, relationships and community participation can all positively influence student resilience. This study therefore extends this research by including other school climate dimensions and their potential relationship with student resilience.

Since this study explores the inter-relationships between wellbeing, resilience and moral identity, a brief review of past research on resilience and wellbeing is included in Section 2.4. In short, research indicates that there is a strong correlation with student resilience and wellbeing (Agbakwuru & Stella, 2012; Klohnen, 1996; Mak, Ng, & Wong, 2011; Tugade & Fredrickson, 2004; Werner & Smith, 1992; Yarcheski, Scholoveno, & Mahon, 1994; Zaleski, Levey-Thors, & Schiaffino, 1998). This study further extends past research, as the researcher explores this relationship.

This section concludes with a brief review of six historically significant resilience instruments; of these, the modified Resilience Scale RS-15 (Neill & Dias, 2001) was considered most appropriate for this study.

In the last section, the researcher explores the definition of moral identity and past research related to this term. Like the preceding sections, a review of past instruments is included. The origins of moral identity research are found in Piaget's (1932) cognitive developmental theory. This theory proposed that moral identity is at the core of one's being, and informed early research. From the 1960s, Kolhberg's developmental theory dominated moral identity research, measuring moral identity by the degree to which moral judgements shape moral behaviour (Kohlberg, 1984). As research progressed, moral development was seen from a socio-cultural perspective (Cote & Levine, 2002; Kroger, 2007; Penuel & Wertsch, 1995; Sfard & Prusak, 2009; Tappan, 2006), recognising the significant influence of the social environment. Since the focus of this study is to explore the relationship between the school climate and students' moral identity, a brief review of this research follows. In short, there is limited past research that explores this relationship specifically, and this study addresses this gap.

This section concludes with the researcher providing a brief overview of three historically-significant moral identity instruments; one, the Moral Identity Scale (MIS), developed by Aldridge, Ala'i and Fraser (2016), was considered as most appropriate for this study.

In conclusion, this literature review highlights existing gaps in past research and established the significance of the present study in bridging these gaps. In the following chapter the researcher presents the research methods used in this study.

CHAPTER 3

RESEARCH METHODS

3.1   Introduction

Whereas the last chapter reviewed literature pertinent to the present study, in this chapter the researcher details the research methods used to investigate whether relationships exist between students' perceptions of their school climate and their wellbeing, resilience and moral identity. The research methods used to collect and analyse the data are described under the following headings:

- Research objectives (Section 3.2);
- Development of the research model (Section 3.3);
- Sample (Section 3.4);
- Instruments (Section 3.5);
- Data collection (Section 3.6);
- Data analysis (Section 3.7);
- Ethical considerations (Section 3.8); and
- Chapter summary (Section 3.9).

3.2   Research Objectives

The research objectives, introduced in Chapter 1, are restated here.

Research Objective 1

> To provide evidence to support validity and reliability of the instruments used to assess students' perceptions of the school climate and self-reports of wellbeing, moral identity and resilience, when used in independent secondary schools in South Australia.

Research Objective 2

To explore the relationships between student's perceptions of the school climate and their self-reports of:

- wellbeing;
- resilience; and
- moral identity.

Research Objective 3

To investigate the relationships between:

a. resilience and wellbeing
b. resilience and moral identity
c. moral identity and wellbeing.

In the following section the researcher provides an outline of this study's research model and the hypotheses that were delineated.

3.3   Development of the research model

Based on theorising and a review of literature (presented in Chapter 2), the underlying assumptions of this study are that: 1) school climate is related to student wellbeing, resilience and moral identity; 2) students' resilience is associated with their wellbeing and moral identity; and 3) students' moral identity is linked to their wellbeing.

As explained in Chapter 2, school climate is the "norms, values and expectations that support people feeling socially, emotionally, and physically safe" (Cohen, McCabe, Mitchelli, & Pickeral, 2009, p. 182). Two key aspects of past research provide direction for the research model proposed in this study: school climate promotes multi-developmental outcomes (Lerner & Steinberg, 2009); and students have been found to offer unique and important insights into their experience of school in terms

of teachers, classroom and the climate (Ludtke, Robitzsch, Trautwein, & Kunter, 2009). Thus, this study further explores the relationships between school climate and student outcomes of wellbeing, resilience and moral identity, based on student perception (See Figure 3.1). Based on the six hypotheses introduced in Chapter 1, a research model for the study is formulated (represented in Figure 3.1). The model hypothesises that students' perceptions of each of the constructs of school climate (Teacher Support, School Connectedness, Peer Connectedness, Affirming Diversity, Rule Clarity, Reporting and Seeking Help) are related to their wellbeing (*Hypothesis 1*), resilience (*Hypothesis 2*) and moral identity (*Hypothesis 3*). Additionally, it is hypothesised that students' resilience is associated with their wellbeing (*Hypothesis 4*) and moral identity (*Hypothesis 5*). Finally, it is hypothesised that their moral identity is related to their wellbeing (*Hypothesis 6*).

Hypothesis 1

In this study, wellbeing is defined as "the degree to which a person is fully functioning" (Ryan & Deci, 2001, p. 141) and utilises a positive framework (Hamilton & Redmond, 2010; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). Research over the past decade has provided significant evidence that the mental health and wellbeing of children are correlated to economic and emotional wellbeing later in life (Gibbons & Silva, 2011; Heckman, Stixrud, & Urzua, 2006). In light of these findings, the role of educational institutions becomes significant, as students spend up to thirteen years of the developmental stage of life there.

Research suggests that, aside from schools providing a traditional education, schools may also be conceived as places that facilitate human and social development (Seligman & Csikszentmihalyi, 2000). This new role of schools has been conceptualised and articulated in a number of Australian state and national education policies (for example, the Melbourne Declaration on Educational Goals for Young Australians, 2008; the National Framework in Values Education, Commonwealth of Australia, 2010). The common feature interwoven through these policies is the recognition of a school's influence on student's social development. For example, "schools play a vital role in promoting the intellectual, physical, social, emotional,

moral, spiritual and aesthetic development and wellbeing of young Australians"
(Melbourne Declaration on Educational Goals for Young Australians, 2008, p. 4).
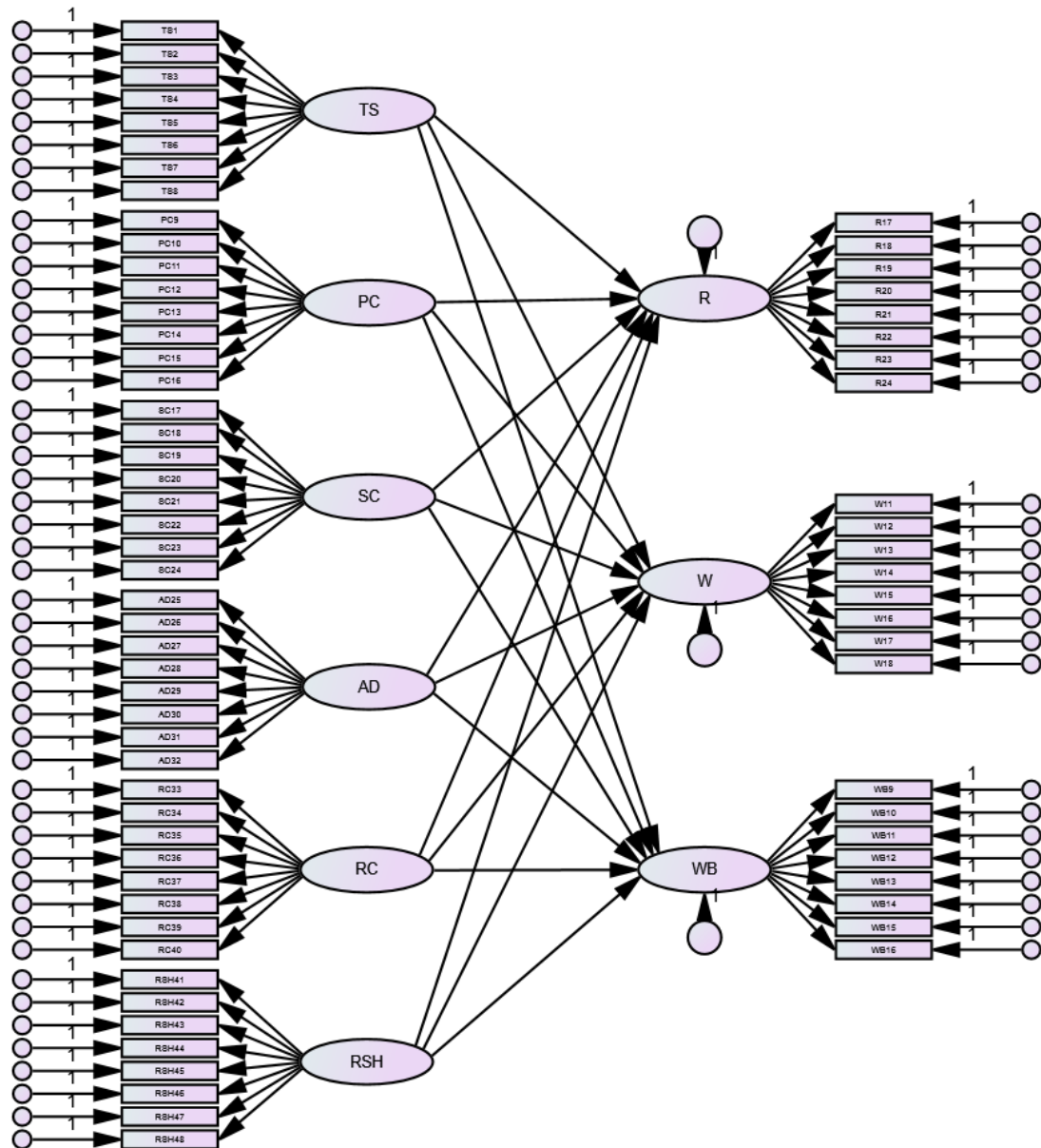
Figure 3.1 Relationship of the hypotheses to the structural model

Based on past research, which has indicated that the school climate could influence
students' optimistic acceptance of life, psychological and physiological wellbeing
(Ruus, et. al. 2007), and the growing importance of a school's role, this study
hypothesises that students' perceptions of the inclusive nature of their school climate
is associated with their wellbeing. That is, the more students perceive their school
climate to enable social connectedness, school connectedness, diversity affirmation,

rule clarity and clear guidelines regarding interpersonal behaviour, the more positive their self-reports of wellbeing will be.

Hypothesis 2

Resilience is identified as a personal resource that helps people to avoid or recover from destructive emotional experiences, ranging from mild anxiety through to significant trauma (Tugade & Fredrickson, 2004). Given the importance of resilience and the influence of the social environment on this resource, many key stakeholders (community, parents, and so on) believe that by changing the social and physical landscape rather than the individual (Ungar, Ghazinour, & Richter, 2013), the school can promote the development of students' identities to enable them to cope in the rapidly changing world (Flum & Kaplan, 2006; Harrell-Levy & Kerpelman, 2010). This new role for schools could help to address the high prevalence of youth depression (Seligman et al., 2009).

Since schools are well placed to positively enhance students' resilience through "warm relationships, a supportive climate, high expectations, and an orderly structure with consistent rules and discipline" (Masten, Herbers, Cutuli, & Lafavor, 2008, p. 79), it is hypothesised that an inclusive school climate is related to students' resilience. That is, the more students perceive their school climate as enabling social connectedness, school connectedness, diversity affirmation and clarity of guidelines regarding interpersonal behaviour, the more positive their self-reports of resilience will be.

Hypothesis 3

Hart, Atkins and Ford (1998) define moral identity as "a commitment of one's sense of self to lines of action that promote or protect the welfare of others" (p. 515). This definition highlights the very nature of moral identity; the inner and outer focus on what is right; in other words, how our own judgment embodies social consensus.

Past research has suggested that moral development and moral action are in fact, embedded in community context. A person "does not experience a sense of

obligation or responsibility to act in isolation but with others within a cultural setting" (Power, 2004, p. 52). The community has a significant role in providing individuals with a relational setting that influences their self-control, integrity, and moral desires, and understanding of their moral self (Kochanska, 2002; Power, 2004). This suggests that a school community can play a significant role in a student's moral development. For example, Payne et al. (2003) showed that students report greater internalisation of community goals and norms and less delinquency when their experience of school is one of care and support. Whilst there has not been extensive research into the relationship between student moral identity development and school climate, there is good reason to believe that important links exist (Schachter, 2005).

Given these findings, this study hypothesises that school climate is associated with students' moral identity. That is, the more students perceive their school climate as enabling social connectedness, school connectedness, diversity affirmation and clarity of guidelines regarding interpersonal behaviour, the more positive their moral identity self-reports will be.

Hypothesis 4

Past research suggests that resilience makes a significant contribution to an individual's wellbeing (Agbakwuru & Stella, 2012). According to Klohnen (1996) and Werner and Smith (1992), resilient individuals have higher levels of hope and optimism, which have been linked with positive wellbeing (Yarcheski, Scholoveno, & Mahon, 1994; Zaleski, Levey-Thors, & Schiaffino, 1998). Given the significance of resilience in relation to wellbeing, it is hypothesised that students' resilience influences their wellbeing. That is, students who feel equipped to cope with life's challenges and thrive are more likely to have a more positive sense of wellbeing.

Hypothesis 5

Results from past studies suggest that resilience is a strong mediating influence on an individual's life (Agbbakwuru & Stella, 2012). Resilience has been found to provide individuals with a stronger identity (Mak, Ng, & Wong, 2011), self-confidence

(Benetti & Kambouropoulos, 2006) and greater ability to self-correct (Masten, Herbers, Cutuli, & Lafavor, 2008). Based on these findings, the relationships were further examined, leading to the hypothesis that students' resilience is linked to their moral identity. That is, students who feel equipped to cope and thrive with life's challenges will be more likely to have a stronger moral identity due to the alignment of self-righting, self-correcting systems that enable moral action (Hart, Atkins, & Ford, 1998; Masten, Herbers, Cutuli, & Lafavor, 2008).

Hypothesis 6

Although past research has identified strong links between identity development and psychological wellbeing (Phinney, 1996), there is limited research exploring the link between moral identity and wellbeing (Hardy, Francis, Zamboanga, Kim, Anderson, & Forthun, 2013). In recent studies, students' emotional success at school has been connected with their moral identity and resilience development (Freiberg, 1999; Frydenberg, Care, Freeman, & Chang, 2009; Gray & Hackling, 2009; Wang, Selman, Dishion, & Stormshak, 2010). Furthermore, links have been identified between moral identity and, higher self-esteem (Higgins-D'Alessandro & Power, 2005), motivation towards positive behaviours and avoidance of negative behaviours (Hardy, et al., 2013). Given these findings, this largely unexplored area was further investigated, and it was theorised that moral identity is related to wellbeing, leading to the hypothesis that students' moral identity is related to their wellbeing. That is, students who have a strong sense of moral agency are more likely to have a healthier wellbeing, due to the alignment of 'values and actions' that leave students feeling better about themselves (Keefer, 1996).

3.4   Sample

This section describes the sample involved in the present study and how they were selected, including the selection of schools (Section 3.4.1) and students (Section 3.4.2).

3.4.1   Selection of schools

The sample was drawn from fifteen independent, non-government secondary schools in South Australia. These schools were selected for three reasons.

First, the selection of schools was based on convenience and a willingness to be involved. I, the researcher, work in a Catholic systemic school and attend regular independent school professional development programs, and therefore used my connections within the system to increase the possibility of eliciting the involvement of schools. Forty-five South Australian independent secondary private schools were approached, of which fifteen schools volunteered to participate. Second, only non-government schools were selected. This was again based on convenience and access to schools. Finally, the sample included a cross-section of schools from both dependent and independent schools. Seven schools from the sample represent systemic Catholic schools that were under the governance of the South Australian Catholic Education Office. The eight remaining schools were 'non-systemic' Catholic and Christian schools, which were governed by their own school boards.

To further increase the generalisability of the results, the sample size varied in four distinct ways; location, size, enrolment profile and age of school. Each of these are discussed below and summarised in Table 3.1.

First, the locations of the participating schools provided a cross section of schools. Both the metropolitan and regional sectors were represented, with the sample consisting of ten metropolitan co-educational, three single-sex metropolitan and two rural co-educational schools.

Second, the enrolment size across the selected schools varied considerably. Four schools had an enrolment size of less than 400 students, five had less than 800, whilst the remaining six had an enrolment of over 800 students. It was important to include in the sample schools of varying size, as this factor has been found to influence students' sense of connectedness. For example, small school size has been positively associated with enhanced school connectedness (McNeely, Nonnemaker, & Blum, 2002). Given that this study measures school connectedness and its

influence on outcomes, it was important to have a sample that included schools of various sizes (student numbers) to avoid skewed results.

Third, the enrolment profile of the selected schools varied, with the inclusion of schools with large and small enrolment numbers, and co-education and single sex cohorts. In the sample, thirteen of the schools were co-educational and three were single-sex girls' colleges. The majority of the schools were Catholic, with only two out of the fifteen representing private Christian schools. The tuition fees for five schools were less than $5000 per annum; six schools' fees were less than $8000; and the remaining four were over $8000 per annum (see Table 3.1). While the fee structure does not necessarily reflect the socio-economic breakdown of each school, it does provide a general indicator of the financial position of families that can afford to send their children.

Finally, the schools varied in their age. Eleven of the schools represented were more than 50 years old and therefore, had well-established school cultures. The other four schools were relatively young (less than 32 years old), and therefore were at different stages in their identity formation.

3.4.2   *Selection of students*

The sample involved 618 Year 11 students. Year 11 students were chosen as the target audience for two reasons. First, their stage in adolescence (aged between 16 and 17 years) was considered to be an important factor, as this would affect their knowledge of specific school climate dimensions. Adolescents aged between 16 and 17 years are generally considered to be in their final years of the transitional stage from childhood to adulthood. They have experienced at least three years of adolescence, and grappled with this identity development period. In general, they have reached a level of maturity and awareness of themselves, whilst still identifying with a degree of vulnerability.

Table 3.1   Sample distribution of 15 schools

School	Nature of Enrolment	Status	Location	Number of students	Fees for Year 11	Over 50 years old
1	Co-education	Non-systemic Catholic	Metropolitan	<800	9140	Yes, founded 1886
2	Co-education	Systemic Catholic	Metropolitan	<800	5580	No, founded 1984
3	Co-education	Systemic Catholic	Regional	>400	4164	Yes, founded 1871
4	Single-sex female	Non-systemic Catholic	Metropolitan	>400	7500	Yes, founded 1872
5	Co-education	Systemic Catholic	Metropolitan	>800	4430	Yes, founded 1927
6	Co-education	Systemic Catholic	Metropolitan	<800	6360	No, founded 2007
7	Single-sex female	Systemic Catholic	Metropolitan	>800	5324	Yes, founded 1961
8	Co-education	Independent Christian	Metropolitan	>400	5030	Yes, founded 1976
9	Co-education	Non-systemic Catholic	Metropolitan	<800	9360	Yes, founded 1914
10	Single-sex female	Non-systemic Catholic	Metropolitan	>800	8718	Yes, founded 1880
11	Co-education	Non-systemic Catholic	Metropolitan	<800	12340	Yes, founded 1951
12	Co-education	Systemic Catholic	Regional	>400	4563	Yes, founded 1878
13	Co-education	Independent Christian	Metropolitan	>800	5975	No, founded 1983
14	Co-education	Systemic Catholic	Metropolitan	>800	4184	No, founded 1979
15	Co-education	Systemic Catholic	Metropolitan	<800	4794	Yes, founded 1874

N =618 students in 15 schools.

Second, Year 11 students were selected because, by this stage of their secondary education, they would have been part of the school community and have experienced the school climate for at least 4 years. Therefore, they would be acquainted with the

school community and have an understanding of the school climate, based on their direct experiences.

The surveys were administered to three Year 11 classes in each of the 15 schools. To ensure a balanced cross section of students, the questionnaires were administered during a home class. Students attend this class daily, often for administration or pastoral care purposes. These classes are grouped randomly (no streaming takes place) and therefore contain a cross section of the student body. The selection of these classes served to ensure the participants represented different ability, maturity, gender and states of wellbeing. The surveys were administered to a total of 648 students. After initial collation, 618 responses (407 female and 211 male) were considered to be complete and usable. The remaining 30 responses were discarded due to missing data (Alreck & Settle, 1995).

3.5   Instruments

Data collection for the present study involved the administration of two questionnaires. The first, an existing questionnaire, the What's Happening In This School? (WHITS), was used to assess students' perceptions of the school climate (described in Section 3.5.1). A second questionnaire was made up of existing scales, modified for the purpose of this study, to assess students' reports of wellbeing, moral identity and resilience (WERMI). This survey and its development are described in Section 3.5.2.

3.5.1   *What's Happening in This School (WHITS)*

To assess students' perceptions of the school climate, the What's Happening In This School? (WHITS) questionnaire was used. The WHITS was developed by Aldridge and Ala'i (2013) "to assess school climate, in terms of students' perceptions of the degree to which they feel welcome and connected" (p. 47). The scale was based on sound theoretical and research findings related to relationships, school connectedness and diversity (see Section 2.2 for more information). In a pilot study involving 4067 high school students from eight schools in Australia, the reliability and validity analyses showed good results, including: sound internal consistency; face validity;

construct validity; and concurrent validity. Its relevance to the Australian context and strong reliability made it a suitable choice for the present study.

The WHITS includes six scales, which recognise some of the dimensions of school climate that have been identified in past research as important to an inclusive school climate (Aldridge & Ala'i, 2013), including; Teacher Support, Peer Connectedness, School Connectedness, Affirming Diversity, Rule Clarity and Reporting and Seeking Help. In total, the WHITS has 48 items with eight items in each of the six scales.

The first two scales, Teacher Support and Peer Connectedness, assesses the relationships that students have with their teachers and peers. According to Loukas and Robinson (2004), teacher support has a strong moderating influence on a student's confidence, perseverance and sense of belonging. Furthermore, peer connectedness has been found to be a powerful influence on a number of student outcomes, such as social development, confidence and personal growth (Goldbaum, Craig, Pepler, & Connolly, 2003; Rutter, 2003; Stewart, 2003).

The third scale, School Connectedness, measures students' sense of belonging. Past research on school connectedness has shown strong links between a sense of belonging/connectedness and a variety of health outcomes (Rowe, Stewart, & Patterson, 2007), including students' mental health and psychosocial wellbeing (Bond, et al., 2007; Hawkins, Kosterman, Catalano, Hill, & Abbott, 2005; Resnick, et al., 1997; Rutter, Maughan, Moretimore, Ouston, & Smith, 1979). The significance of school connectedness in more recent studies has highlighted the importance of the quality, integrity and depth of relationships within the school community (Kawachi & Berkmann, 2000).

The fourth scale, Affirming Diversity, measures the extent to which a student feels acknowledged and valued, regardless of differences. As Dessel (2010) suggests, the school environment could be considered a microcosm of society, and as such, provides opportunities to learn, respect and value difference, alleviating prejudice and barriers. Given that this role of schools is also reflected in UNESCOS's (1995, 1997, 2000) policies on inclusion, that "advocate respect, acceptance and

appreciation of the diversity of our world's cultures" (Aldridge & Ala'i, 2013, p. 50), the WHITS includes a scale to measure Affirming Diversity.

The fifth scale, Rule Clarity, measures the extent to which a student perceives the school rules to be clear and promote a safe environment. In past research, student's perception of their safety has been recognised as a significant school climate feature (Cohen, McCabe, Michelli, & Pickeral, 2009). In essence, past research suggests that discipline and order is an essential element of a positive school climate (Wang, Selman, Dishion, & Stormshak, 2010), highlighting the importance of the effective establishment, communication and equitable enforcement of clear rules in a school. To this end, this construct was considered pivotal in ensuring a positive school climate (Aldridge & Ala'i, 2013).

Finally, the Reporting and Seeking Help scale assesses the degree of student awareness surrounding the procedures and the subsequent confidence that students have in reporting or seeking help when school rules were breached. This scale was included because it recognises key findings from past research. Eliot, Cornell, Gregory and Fan (2010) suggest that school climate is often measured through the lens of student perceptions of fair treatment, care and their relationships with teachers. Further, Aldridge and Ala'i (2013) found that school safety and student rights are a prominent feature in schools where students perceive that they are comfortable with and well informed about the procedures for reporting the breaking of school rules (Bandyopadhyay, Cornell, & Konoid, 2009).

The items were responded to using a five-point frequency response format of *Almost Never, Seldom, Sometimes, Often* and *Almost Always*. Table 3.2 provides, a description and a sample item for each WHITS scale. A copy of the full version of the questionnaire can be found in Appendix A.

Table 3.2   Descriptions and sample item for each scale of the WHITS questionnaire

Scale	Description	Sample Item
	The extent to which …	
Teacher Support	...students perceive that teachers at the school are supportive and helpful.	At this school teachers take an interest in my background.
Peer Connectedness	...students feel that there is contact and friendship between students from diverse cultures and backgrounds.	At this school I make friends with people from different backgrounds.
School Connectedness	...students perceive that students at the school are part of a community.	At this school I feel welcome.
Affirming Diversity	...students with differing cultural backgrounds and experiences are acknowledged and valued.	At this school my cultural background is respected by students.
Rule Clarity	...students perceive the school rules to be clear and promote a safe environment.	At this school the rules make it clear that certain behaviours are unacceptable.
Reporting and Seeking Help	...students are aware of procedures and are confident that they can report incidents.	I can report incidents without others finding out.

Source: Aldridge & Ala'i (2013, p. 55)

3.5.2   Wellbeing, resilience and moral identity (WERMI)

The second survey used to collect data in the present study is made up of three scales that measure student wellbeing, resilience and moral identity. Each of these scales and its modification for use in the present study is described below. (See Appendix B for the full version of the WERMI scale.)

3.5.2.1   Wellbeing

The Emotional Wellbeing Scale, adapted from the WHO-5 Wellbeing Index 1998 (World Health Organisation, 1998), was used to assess students' wellbeing. The original WHO-5 was selected (as discussed in Chapter 2) because, from a psychometric point of view, it is a robust questionnaire (Allgaier et al., 2011; Bech, 2012; Bonsignore, Barkow, Jessen, & Heun, 2001; Love, Andersson, Moore, & Hensing, 2014). The WHO-5 aims to measure psychological wellbeing, identifying

positive emotions (or the absence of) rather than the presence of negative emotions (De Wit, Pouwer, Gemke, Delemarre-van de Waal, & Snoek, 2007). The items cover positive mood (good spirits, relaxation), vitality (being active and waking up fresh and rested), and general interests (being interested in things) (Bech, 1998). Modifications to the original scale were made to ensure the suitability of the WHO-5 for high school students. These modifications involved simplifying and shortening each item. For example, the item 'I have felt cheerful and in good spirits' was simplified to 'I have felt cheerful'. Further, three items were added to the WHO-5 to measure other aspects of positive mood, vitality and general interests. The WHO-5 was not developed for high school, therefore the items were added to suit high school students and strengthen the overall measure. The additional items were: 'I have expected things to go my way'; 'I have had a positive attitude about myself'; and 'I have slept well'.

Participants responded to items in the WHO-5 based on how they had felt within the last two weeks. Each of the eight items were responded to using a five-point frequency-response scale of *Almost Never, Seldom, Sometimes, Often* and *Almost Always.* Table 3.3 provides a scale description and sample item.

Table 3.3   Descriptions and sample item for each scale of the WERMI questionnaire

Scale	Description	Sample Item
Wellbeing	The extent to which students have a positive state of wellbeing	I have felt cheerful.
Resilience	The extent to which students feel that they are able to cope with adversity and stress and achieve goals in the face of obstacles	I am able to adapt to change
Moral Identity	The extent to which students act in a way that is moral and have a commitment to lines of action that promote or protect the welfare of others	When I see someone having a problem, I offer to help.

Source: Wellbeing Scale (Aldridge & Ala'i, 2013) adapted from the WHO-5 (WHO, 1998).

Resilience Scale (Aldridge & Ala'i, 2013) adapted from Resilience Scale 15 (Neill & Dias, 2001)

Moral Identity Scale (Aldridge, Ala'i & Fraser, 2016)

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3.5.2.2   Resilience

An eight-item Resilience Scale was used for this study. The origins of this scale, as discussed in Chapter 2, can be traced back to Wagnild and Young's (1993) 25-item Resilience scale, which was then modified by Neill and Dias (2001) and then further modified by Aldridge and Ala'i (2013). The version used in this study assesses the extent to which students are able to cope with adversity and stress and achieve goals in the face of obstacles (Aldridge & Ala'i, 2013). The scale explores several underlying concepts, including perseverance, optimism and hope, altruism, empathy and existential aloneness (Block & Kremen, 1996; Hurtes & Allen, 2001; Jew, Green, & Kroger, 1999). The items in the resilience scale are positively worded and aim to explore underlying constructs including perseverance, equanimity, meaningfulness, and existential aloneness (Aldridge & Ala'i, 2013). The eight items in the scale are simplified to suit high school students and to enable responses to be made using the same five-point frequency scale *Almost Never, Seldom, Sometimes, Often* and *Almost Always,* as the other scales in the instrument. For example, the original item of 'When I am in a difficult situation, I can usually find my way out of it' was modified to 'I can achieve goals despite obstacles'. Table 3.3 provides a description and sample item.

3.5.2.3   Moral Identity

The Moral Identity Scale was drawn from the Ethnic and Moral Identity Scale (EMIS) developed by Aldridge, Ala'i and Fraser (2016). The theoretical framework for the Moral Identity Scale is centred around Erikson's (1964) argument that an individual will strive to maintain consistency between conceptions of their moral self and their actions. The scale assesses a student's response to a set of actions that might be related to actions that are identified as moral (Aquino & Reed, 2002). Evidence for the validity and reliability of the Moral Identity Scale was provided in a Western Australian study involving 4076 students (Cronbach alpha reliability was 0.94) (Aldridge, Ala'i & Fraser, 2016). The eight items of the WERMI addressing Moral Identity were responded to using a five-point frequency-response scale of *Almost Never, Seldom, Sometimes, Often* and *Almost Always.* Table 3.3 provides a description and sample item.

3.6   Data collection

Before schools were approached, permission from the respective authorities responsible for each system was sought. Once permission was granted, requests were made to 45 schools in South Australia, of which 15 agreed to support the study. Each principal then appointed a contact person, whom I worked closely with.

At each school, the contact person was supportive of the research and helped to facilitate the administration of the WHITS and WERMI. To ensure consistency with the survey administration, an information pack with clear instructions was sent out to each administrator (a copy of which can be found in Appendix C). The pack provided a brief synopsis that included information about the researcher, the purpose of the research and the chosen approach. Anonymity and written permission was also stipulated, coupled with a description of how this study complies with ethical requirements. Contact details for questions and/or complaints, availability of results and the research approval number were provided.

The contact person served as the point of contact between myself and teachers whose classes were selected for surveying. The contact person also took responsibility for the administration and collection of parent consent forms, selection of classes/teachers, briefings regarding procedural matters and emailing the questionnaire link to all participants. Checklists and instruction scripts were provided to ensure the uniformity of questionnaire administration.

The two surveys, WHITS and WERMI, were administered online via Survey Monkey to the students during the first four weeks of the final term of the academic year. Under the guidance of the research administrator and guidelines provided, the survey administration was completed by classroom teachers.

Students' participation was voluntary and the confidentiality of the schools and students' data was ensured. The survey was completed in a 10 to 15-minute time frame.

3.7 Data analysis

The data collected from 618 students in 15 schools were analysed in various ways to answer each of the research objectives. First, analyses were carried out to examine the reliability and validity of the two questionnaires, WHITS and WERMI, using SPSS (described in Section 3.7.1). Second, structural equation modelling (SEM), using AMOS Version 22 (Arbuckle, 2013) was used to investigate the associations between the school climate and students' wellbeing, resilience and moral identity (described in Section 3.7.2).

3.7.1 Reliability and validity of the instruments

As a first step, data analysis was carried out to provide evidence for the reliability and validity of the two questionnaires when used in the South Australian context. This involved examining the factor structure, internal consistency reliability and ability to differentiate between schools. The analysis for each is described below.

Exploratory factor analysis, involving principal axis factor analysis with oblique rotation, was carried out separately for each of the WHITS and WERMI questionnaires to examine the *a priori* factor structure and, where necessary, to refine the instrument. Given that the constructs within the two surveys were expected to overlap, oblique rotation was considered to be most appropriate. To establish the viability of each item, two criteria were utilised, as recommended by Field (2009); each item had to have a factor loading of at least 0.30 on its own scale and less than 0.30 on any other scale. Only items that met these criteria were retained for subsequent analysis.

For both instruments (the WHITS and WERMI), the internal consistency reliability of each scale was calculated using Cronbach's alpha coefficient. The Cronbach alpha coefficient, developed by Cronbach (1951), is a widely-used method for assessing the reliability of a questionnaire in which alpha value ranges from 0 (inconsistent) to 1 (perfectly consistent). The Cronbach alpha coefficient was used to describe the extent to which items in a scale assessed the same construct. The closer the coefficient is to 1, the more reliable the scale is. For my study, the widely accepted

cut-off of 0.70 for an acceptable alpha coefficient of 0.70 was used (Bland & Altman, 1997).

Theoretically, students within the same school should perceive the school climate in relatively similar ways, while the school mean should vary from one school to another. To examine whether the scales included in the instruments were able to differentiate between students' perceptions in different schools, a one-way analysis of variance (ANOVA) with school membership as the main effect was used. Two indices related to the ANOVA results, the significance level and eta^2 statistic (the proportion of 'between' to 'total' sums of squares), were used to examine the proportion of variance explained by school membership.

Discriminant validity examines the interrelatedness of the different factors included in a survey. According to Field (2009), there should be moderately strong relationships between factors. Factor correlations above 0.80, however, imply that the constructs overlap and, therefore, there is poor discriminant validity. Given that oblique rotation provides a realistic representation of how factors are interrelated (Brown, 2006; Field, 2009), to examine the discriminant validity of the instruments, the correlation matrix generated during oblique rotation was used to examine whether this condition was met.

3.7.2   *Investigating associations between school climate, wellbeing, resilience and moral identity*

Research Objectives 2 and 3 sought to assess the research model (described in Section 3.3) to investigate the relationships between: students' perceptions of school climate and their wellbeing, moral identity and resilience (*Research Objective 2*); and the interrelationships between the three outcome variables as reflected in the hypothesised research model (*Research Objective 3*). To examine these hypothesised relationships, a research model was developed. The design of this study does not allow for causal claims about the relationships that were tested. The direction of the relationships was decided *a priori*, based on previous research and theorising. This section describes the steps, involving SEM using AMOS 22, used to examine the assessment of the research model's overall fit (described in Section 3.7.2.1) and the testing of the hypotheses (described in Section 3.7.2.2).

3.7.2.1   Assessment of the research model's overall fit

To "determine the degree to which the model as a whole is consistent with the empirical data" (Diamantopoulos & Siguaw, 2000, p. 82) the model's overall fit was assessed. Using the refined version of the instruments, based on the result of exploratory factor analysis, the goodness of fit or fitness of the research model was examined to ensure the confirmatory power of the proposed hypothesised relationships. To do this, confirmatory factor analysis (CFA) methods were used to establish whether the hypothesised model provided a good fit to the data (Hu & Bentler, 1999).

CFA was used for three purposes. First, CFA was used to determine whether the data confirmed the proposed six-scaled WHITS and three-scaled WERMI. The factor structure of scales within the instruments was tested through the examination of their convergent value and discriminant validity. Second, CFA was used to examine the scale fit (construct measurement fit) and research model fit (Bagozzi, Yi, & Phillips, 1991). To measure the scale fit, three fit indices generated by AMOS 22 were used: the Root Mean Square Error of Approximation (RMSEA); Goodness of Fit (GFI); and Comparative Fit Index (CFI), as advised by Jöreskog and Sörbom (1996). CFA was used to measure the research model fit using five fit indices: the Root Mean Square Residual (RMSR); the Root Mean Square Error of Approximation (RMSEA); Goodness of Fit (GFI); Comparative Fit Index (CFI); and the Normed Fit Index (NFI).

Finally, the research model was confirmed by examining the coefficient of determination to ensure the confirmatory power of the hypothesised relationships, the contribution of each item to its scale and the relationship between scales of the same questionnaire. The explanatory powers of the model were assessed by calculating the coefficient of determination (R^2) of the endogenous scales (Santosa, Wei, & Chan, 2005). Diamantopoulos and Siguaw (2000, p. 92) maintain that a high multiple square correlation value denotes "high reliability for the indicator concerned, therefore the higher the squared multiple correlation, the greater the joint explanatory power of the hypothesised antecedents."

3.7.2.2   Testing the hypotheses

SEM is a multivariate technique combining aspects of multiple regression (examining dependence relationships) and factor analysis (representing unmeasured concepts with multiple variables) to estimate a series of interrelated dependence relationships simultaneously (Gefen, Straub, & Boudreau, 2000). To test the hypotheses, the path coefficient (γ) and the *t*-value (*p*) of each hypothesised correlation were calculated. The path coefficient was used to examine the relationships between the variables in the model which, according to Shipley (2000), is the standardised version of linear regression weights which can be used to examine possible causal links between statistical variables during the structural equation modelling approach.

The *t*-value was used to test whether a single parameter was equal to zero (Diamantopoulos & Siguaw, 2000). The use of *t*-values on parameters understates the overall Type I error rate and, therefore, multiple comparison procedures must be used (Fornell & Larker, 1981). Therefore, to be considered significant, a parameter needs its *t*-value to be bigger than 1.96 and smaller than -1.96.

3.8   Ethical considerations

A number of protocols and procedures were implemented to address potential ethical concerns and to ensure the anonymity of schools and participants throughout the research. This section outlines the ethical considerations that were made at various stages of the study to protect the systems, schools and individuals who participated in this study, including informed consent (Section 3.8.1), and confidentiality (Section 3.8.2).

3.8.1   Informed consent

Written permission from all participants — governing bodies, principal, parents and students — was sought. Initially, ethics approval was sought from the Human Research Ethics Committee of Curtin University (a copy of the ethics approval letter can be found in Appendix D). After this approval was given, permission was sought

from the Director of Catholic Education. The director was provided with written information about the study, including: a brief statement of the nature of the research; the proposed nature and type of data to be collected; a copy of the candidacy and ethics approval (see Appendix E for a copy of the information sheet for principals); a copy of the questionnaire and a proposed letter to principals (see Appendix F), parents and students (see Appendix G).

Once approval was granted by the Director of Catholic Education, a list of possible schools was compiled (a copy of the approval letter from the Director of Catholic Education can be found in Appendix H). The principal from each school was approached and provided with information about the study, which included: a brief statement of the nature of the research; the proposed nature and type of data to be collected; a copy of the candidacy and ethics approval; a copy of the Director of Catholic Education approval; a copy of the questionnaire; and a proposed letter to parents and students. Of the 45 schools that were approached, fifteen principals agreed to participate in the study. Once the principal provided consent, they appointed a contact person, who then negotiated the details pertaining to the administration of the questionnaire, selection of classes, timing, IT requirements and distribution and collection of parental consent forms.

Given that the participants were volunteers and minors, signed permission from their parent or guardian was then sought. A parent consent form, which included a brief statement of the purpose and nature of research, was distributed to the selected Year 11 students. Parents were reassured that their child had the right to withdraw from the research at any time without prejudice or negative consequences and that no aspect of the research would be used in determining the performance of their schoolwork. (Copies of the information sheet and parent consent form are provided in Appendix G). The collection of these forms took place over the first two weeks of the final term for the year.

Once parental consent was granted, participating students were provided with details surrounding the purpose and nature of the research. On the day of administration, students were reminded about the anonymity of their responses, and a provision of time was afforded for questions. Students were also reminded that withdrawal from

the survey at any time would be without any prejudice or repercussions and that their participation was completely voluntary.

3.8.2   *Confidentiality*

Confidentiality was guaranteed to all participating schools and students by ensuring they remained anonymous throughout the study, from data collection, through to the final report on findings. The schools and students were coded as numeric values so as to remove identifying dimensions during data preparation and entry. Access to the data was only available to the researcher and PhD supervisor.

3.9   **Chapter summary**

The present study involved the collection of data from 618 students in 15 independent secondary schools in South Australia. South Australia was chosen because it is the state where I live and therefore convenient. The selection of independent secondary schools was based on convenience sampling techniques and was an adequate and representative sample.

Data were collected using two instruments, namely, the What's Happening in This School (WHITS) and the Wellbeing, Resilience and Moral Identity (WERMI). The WHITS was used to assess students' perceptions of the school climate, focusing on six school climate dimensions. Each dimension contained eight positively worded items and measured students' perceptions of Teacher Support, Peer Connectedness, School Connectedness, Affirming Diversity, Rule Clarity and Reporting and Seeking Help. The WERMI consisted of three scales that aimed to measure student wellbeing, resilience and moral identity. Each scale was modified to ensure suitability for adolescents in an Australian context and consisted of positively worded items. In both surveys, the items were responded to using a five-point frequency scale of *Almost Never, Seldom, Sometimes, Often* and *Almost Always*. The questionnaires were administered online over a four-week period in the final term of the school year.

To provide evidence of the validity and reliability of the instruments (*Research Objective 1*) the factor structure, internal consistency reliability and ability to differentiate between schools were examined. Principal axis factoring with oblique rotation was used to examine the discriminant validity between the WHITS and WERMI questionnaires. To provide an index of internal consistence reliability, Cronbach alpha coefficient was calculated for each scale. Finally, a one-way analysis of variance (ANOVA) was used to determine whether the surveys were able to distinguish between the perceptions of students in different schools.

To examine the relationships between the students' perceptions of their school climate and their wellbeing, resilience and moral identity (*Research Objective 2*) and the interrelationships of the student outcomes (*Research Objective 3*), a research model was developed by hypothesising the potential relationships between items of the school climate and the WERMI.

Once the measurement properties and the research model were confirmed, the research hypotheses were tested by using structural equation modelling (SEM), which involved two stages. The associations between WHITS and WERMI were assessed by examining the *p*-values in order to determine any statistically significant relationships between the scales within the hypothesis.

Prior to the collection of any data, ethics approval was sought from the Human Research Ethics Committee of Curtin University. Ethical considerations were then made at each stage of the study, aiming to protect participants at all levels, including governing bodies, schools, principals, parents and students. These ethical considerations included informed consent, voluntary nature, ability to withdraw and confidentiality.

CHAPTER 4

ANALYSIS AND RESULTS: VALIDATION OF INSTRUMENTS

4.1 Introduction

This chapter provides evidence to support the reliability and validity of the instruments in order to address the first research objective:

To provide evidence to support validity and reliability of the instruments used to assess students' perceptions of the school climate and self-reports of wellbeing, moral identity and resilience, when used in independent secondary schools in South Australia.

These findings are reported under the following headings:
- Validity and reliability of the WHITS Questionnaire (Section 4.2);
- Validity and reliability of the WERMI Questionnaire (Section 4.3); and
- Chapter summary (Section 4.4)

4.2 Validity and Reliability of the WHITS Questionnaire

To provide evidence to support the validity and reliability of the WHITS questionnaire, the factor structure (reported in Section 4.2.1), internal consistency reliability (reported in Section 4.2.2), concurrent validity (reported in Section 4.2.3) and discriminant validity (reported in Section 4.2.4) were examined.

4.2.1 Factor structure

As a first step, the multivariate normality and sampling adequacy of the data were examined. Bartlett's test of sphericity indicated that $\chi^2 = 22535.206$ and this value was statistically significant ($p<0.001$). The Kaiser-Maiyer-Olkin measure of adequacy was high (0.947), confirming the appropriateness of the data for further analysis.

Table 4.1   Factor loadings for individual items and percentage of variance and eigenvalues for each scale

Item Number	Factor Loading					
	Teacher Support	Peer Connectedness	School Connectedness	Affirming Diversity	Rule Clarity	Reporting and Seeking Help
1	0.41					
2	0.78					
3	0.69					
4	0.73					
5	0.58					
6	0.71					
7	0.75					
8	0.74					
9		0.66				
10		0.53				
11		0.31				
12		0.36				
13		0.66				
14		0.71				
15		0.75				
16		0.34				
17			0.42			
18			0.48			
19			0.85			
20			0.82			
21			0.79			
22			0.67			
23			0.79			
24			0.77			
25				0.70		
26				0.81		
27				0.63		
28				0.72		
29				0.61		
30				0.72		
31				0.87		
32				0.80		
33					0.83	
34					0.66	
35					0.60	
36					0.82	
37					0.73	
39					0.81	
40					0.81	
41					0.65	
42						0.67
43						0.68
44						0.71
45						0.77
46						0.76
47						0.72
49						0.74
50						0.66
% Variance	4.50	3.39	9.39	5.86	35.66	2.45
Eigenvalue	2.16	1.63	4.51	2.81	17.12	5.11

Factor loadings smaller than 0.30 have been omitted.

N =618 students in 15 schools.

To provide evidence to support the factorial validity of the WHITS, exploratory factor analysis was conducted. The results of the principal axis factor analysis with oblique rotation confirmed the six scale *a priori* factor structure of the WHITS questionnaire when used with the sample of 618 students. Table 4.1 shows the factor loadings for individual items of the WHITS, as well as the percentage of variance and eigenvalues for each WHITS scale.

All items of the WHITS had a factor loading of at least 0.30 on the *a priori* scale and less than 0.30 on all other scales (See Table 4.1). Therefore, all items were retained. The percentage of variance, reported at the bottom of Table 4.1, ranged from 5.34% to 38.60% for different school climate scales, with a total of 64.71% of the variance accounted for. The eigenvalues ranged from 2.08 to 17.12 for different school climate scales, satisfying the conventionally accepted criteria of one as suggested by Kaiser (1960).

4.2.2 Internal consistency reliability

To provide an index of internal consistency reliability, the Cronbach alpha reliability coefficient was calculated for each WHITS scale. According to Nunnally and Bernstein (1994), an alpha coefficient of at least 0.70 is considered satisfactory and a value of 0.80 is considered good. The results reported in Table 4.2 indicate that the Cronbach alpha reliability coefficients for the six WHITS scales ranged from 0.89 to 0.94, therefore satisfying the accepted cut-off for a good scale.

Table 4.2   Internal consistency reliability (Cronbach alpha) for the WHITS scales

Scale	Cronbach Alpha Coefficient
Teacher Support	0.90
Peer Support	0.90
School Connectedness	0.94
Affirming Diversity	0.89
Rule Clarity	0.92
Reporting and Seeking Help	0.91

**$p < 0.001$
$N = 618$ students in 15 schools.

4.2.3   Ability to differentiate between schools

Theoretically, students in the same school should perceive the school climate in similar ways and should also perceive the school climate differently to students in other schools. Therefore, the concurrent validity was assessed to ensure that the questionnaire was able to distinguish between the perceptions of students in different schools. This was investigated using a one-way analysis of variance (ANOVA) with school membership as the independent variable. The results, reported in Table 4.3, indicate that five of the six WHITS scales were able to differentiate significantly ($p<0.01$) between the perceptions of students in different schools, the exception being Peer Connectedness. The eta^2 statistic, a measure of the degree of association between student perception and the dependent variable (Field, 2009), ranged from 0.04 to 0.09 for different WHITS scales.

Table 4.3   Ability to differentiate between schools (ANOVA results) for the WHITS scales

Scale	ANOVA results (Eta^2)
Teacher Support	0.05**
Peer Connectedness	0.02
School Connectedness	0.04*
Affirming Diversity	0.05**
Rule Clarity	0.09**
Reporting and Seeking Help	0.05**

**$p< 0.001$, *$p< 0.01$
$N =618$ students in 15 schools.
The Eta^2 statistic is the ratio of the between-group effect to the total amount of variance.

4.2.4   Discriminant Validity

Discriminant validity refers to the distinctiveness of the factors measured by different sets of indicators (Kline, 2010). To ensure distinctiveness, the estimated correlations between factors should not be excessively high. Specifically, according to Brown (2006), factor correlations above 0.80 imply an overlap between concepts, which can be indicative of poor discriminant validity. The factor correlations generated during oblique rotation, reported in Table 4.4, indicate that the highest correlation between the different factors was 0.44. Thus, the requirement for the discriminant validity for the WHITS scales was met.

Table 4.4   Component correlation matrix for WHITS scales

Scale	Teacher Support	Peer Connectedness	School Connectedness	Affirming Diversity	Rule Clarity	Reporting and Seeking Help
TS	–	0.28	0.34	0.39	0.44	0.03
PS		–	0.34	0.32	0.31	0.16
SC			–	0.37	0.41	0.11
AD				–	0.36	0.10
RC					–	0.00
RSH						–

N =618 students in 15 schools.

4.3   Validity and reliability of the WERMI questionnaire

The second instrument, the WERMI, was made up of three scales used to assess student wellbeing, resilience and moral identity. Each of the three scales had eight items, which were responded to using a five-point frequency scale ranging from *almost never* to *almost always*. This section reports the findings of analysis used to provide evidence to support the reliability and validity of the WERMI.

4.3.1   Factor structure

The multivariate normality and sampling adequacy of the data were examined. Bartlett's test of sphericity indicated that χ^2 = 10098.846 and this value was statistically significant (p<0.001). The Kaiser-Maiyer-Olkin measure of adequacy was high (0.914), confirming the appropriateness of the data for further analysis.

Principal component analysis with oblique rotation and Kaiser normalisation was used to determine the factorial validity of the WERMI questionnaire with the sample of 618 students. Table 4.5 shows the factor loadings for individual WERMI items, as well as the percentage of variance and eigenvalues for each scale in the WERMI.

Table 4.5   Factor loadings of individual items and percentage of variance and eigenvalues
             for each WERMI scale

Item Number	Factor Loading		
	Moral Identity	Resilience	Wellbeing
1	0.79		
2	0.79		
3	0.79		
4	0.68		
5	0.70		
6	0.59		
7	0.79		
8	0.81		
9		0.64	
10		0.82	
11		0.84	
12		0.53	
13		0.76	
14		0.81	
15		0.87	
16		0.69	
17			0.77
18			0.80
19			0.77
20			0.82
21			0.78
22			0.81
23			0.78
24			0.74
% Variance	14.33	8.80	38.43
Eigenvalue	3.44	2.11	9.22

Factor loadings smaller than 0.40 have been omitted.
N =618 students in 15 schools.

The results, reported in Table 4.5, indicate that all items of the WERMI had a factor loading of at least 0.40 (with the lowest being 0.53) on its own scale and less than 0.40 on other scales, therefore all items were retained. The percentage variance varied from 8.80% to 38.43% for different scales, with a total of 61.56% of the variance accounted for. The value of the eigenvalue ranged from 2.11 to 9.22 for different scales which, based on Kaiser's (1960) 'greater than one' criterion for eigenvalue, were considered to be acceptable.

4.3.2   Internal consistency reliability

As with the WHITS, the Cronbach alpha reliability was used to provide an estimate of internal consistency for each scale of the WERMI. Nunnally and Bernstein's (1994) alpha coefficient of at least 0.70 for satisfactory and a value of 0.80 for a good was also used. The Cronbach alpha reliability coefficients, reported in Table

4.6 for the three WERMI scales, were high, ranging from 0.89 to 0.93 for different scales.

Table 4.6 Internal consistency reliability (Cronbach alpha) for each WERMI scale

Scale	Cronbach Alpha
Moral Identity	0.89
Resilience	0.90
Wellbeing	0.93

N =618 students in 15 schools.

4.3.3 *Ability to differentiate between schools*

To assess the extent to which the scales of the WERMI were able to distinguish between the perceptions of students in different schools, ANOVA with school membership as the independent variable was used. The results, reported in Table 4.7, suggest that two of the three scales of the WERMI were able to differentiate significantly ($p<0.01$) between the perceptions of students in different schools, the exception being the wellbeing scale. The eta^2 statistic, a measure of the degree of association between student perception and the dependent variable for each scales, ranged from 0.01 to 0.05 for different WERMI scales.

Table 4.7 Ability to differentiate between schools (ANOVA results) for WERMI scale

Scale	ANOVA results (Eta^2)
Moral Identity	0.05**
Resilience	0.04*
Wellbeing	0.02

*$p<0.05$ **$p< 0.01$
N =618 students in 15 schools.
The Eta^2 statistic is the ratio of the between-group effect to the total amount of variance.

4.3.4   Discriminant validity

To identify the degree to which the constructs differed from each other, (discriminant validity), the component correlation matrix generated during oblique rotation was used. The results, reported in Table 4.8, shows that the highest correlation was 0.52, indicating that, whilst there is a degree of overlap, the cut-off of 0.80 recommended by Brown (2006) was met.

Table 4.8   Component correlation matrix for WERMI scale

Scale	Moral Identity	Resilience	Wellbeing
Moral Identity	–	0.27	0.52
Resilience		–	0.34
Wellbeing			–

N =618 students in 15 schools.

Overall, the results of the factor analysis, internal consistency reliability and ability to differentiate between schools reported in this section provide evidence to suggest that the WERMI scales were reliable when used with the sample of 618 students in South Australian schools. Further, these findings support the model used in structural equation modelling, as discussed in the next chapter.

4.4   Chapter summary

This chapter provides evidence to support the reliability and validity of the instruments used to assess students' perceptions of the school climate and self-reports of wellbeing, resilience and moral identity, when used in independent secondary schools in South Australia. The data collected from the 618 students were analysed separately for each instrument to examine the factor structure, internal consistency reliability and discriminant validity.

The structure of the WHITS was examined using principal component analysis with oblique rotation and Kaiser normalisation. All items of the WHITS had factor loadings of at least 0.30 on their *a priori* scale and less than 0.30 on all other scales.

The lowest eigenvalue for any of the scales was 1.63 and the total percentage variance accounted for was 64.71%. The Cronbach alpha reliability, used as a measure of internal consistency, ranged from 0.89 to 0.94 for different WHITS scales. The ANOVA results indicated that five of the six WHITS scales were able to differentiate significantly ($p<0.01$) between schools. The eta^2 statistic of the six WHITS scales ranged from 0.04 to 0.09, thus confirming its ability to differentiate between the perceptions of students in different schools for these five scales. Further, the results from the component correlation matrix ranged between 0.27 and 0.52, thus confirming the construct's discriminant validity.

The structure of the WERMI was examined using principal component analysis with oblique rotation and Kaiser normalisation. All 24 items of the WHITS had factor loadings of at least 0.53 on their *a priori* scale. Further, all factor loadings for all of the items were less than 0.40 on all other scales. The eigenvalues ranged from 2.11 to 9.22 and the total percentage variance accounted for was 61.56%. The Cronbach alpha reliability ranged from 0.89 to 0.93 for different WERMI scales. The results of the analysis of variance indicated that two of the three scales, moral identity and resilience, were able to distinguish with statistical significance ($p<0.05$) between schools. The eta^2 statistic of the WERMI scales ranged from 0.01 to 0.05 for different scales.

Overall, the results suggest that both the WHITS and WERMI were valid and reliable when used to measure students' perceptions of their school climate and their self-reports of wellbeing, resilience and moral identity. The scales from both questionnaires were found to measure distinct aspects of the school climate and students' wellbeing, resilience and moral identity.

The following chapter describes the data analysis and findings used to examine relationships between students' perceptions of their school climate and their wellbeing, resilience and moral identity by using structural equation modelling.

CHAPTER 5

ANALYSIS AND RESULTS: TESTING THE HYPOTHESES

5.1   Introduction

This chapter describes the analysis of results used to address Research Objectives 2 and 3, which sought to: 1) explore the relationships between students' perceptions of the school climate and their self-reports of wellbeing, resilience and moral identity; and 2) To investigate the relationships between students' perceptions of their wellbeing, moral identity and resilience. To address these research objectives, a hypothesised model of the relationships between school and student variables, based on theorising and research, was developed (see Figure 1.1 in Chapter 1). The data analysis involved two stages, both using structural equation modelling (SEM), as described in Chapter 3. The first stage involved the use of confirmatory factor analysis to examine whether the data fitted with the hypothesised measurement model. That is, whether the underlying factors in the two surveys were satisfactory for further analysis involving structural equation modelling. The second stage used structural equation modelling to test the research hypotheses using SEM in terms of the magnitude of the effects between school climate dimensions and student outcomes (wellbeing, moral identity and resilience). That is, the associations between the six scales of the WHITS and the three outcome scales were sought by determining whether a particular parameter was able to estimate the potential relationships between the hypothetically correlated scales with statistical significance.

The findings are reported under the following headings:
- Descriptive statistics (Section 5.2)
- Assessing the research model (Section 5.3);
- Confirmation of the research model (Section 5.4)
- Testing the hypotheses (Section 5.5); and
- Chapter summary (Section 5.6).

5.2   Descriptive statistics

As a first step, the descriptive statistics of the dimensions (Teacher Support, Peer Connectedness, School Connectedness, Affirming Diversity, Rule Clarity, Reporting and Seeking Help, Moral Identity, Resilience, Wellbeing) were generated. A table including the means, standard deviations, skewness and kurtosis for each of the 72 items is available in Appendix I. These results show that, with the exception of four items (TS4, WB14, WB15 and WB16), the means for all of the items were greater than the midpoint of 3.00. This indicates that the response to the construct in the study was generally positive. The standard deviations range between 0.899 and 1.300, indicating a relatively narrow spread around the mean and skewness. The skewness indices ranged between -2.228 and 0.007. Based on Kline's recommendation (that the skew indices should be below an absolute value of 3.0), this was considered to be acceptable. Further, the Kurtosis indices ranged from -1.066 to 4.933, which was below an absolute value of 8.0, the cut-off recommended by Kline. Given that the skewness and Kurtosis all were within Kline's (2010) recommended range, the univariate normality in the data was supported.

Maximum likelihood estimate (MLE) procedure was chosen to assess the measurement model. As this procedure assumes multivariate normality of the observed variable, Mardia's normalised multivariate kurtosis value (Mardia, 1970, 1974) was used to examine the data. The value of Mardia's (a standard measure of the multivariate normality), was attained using AMOS 22 (Analysis of a moment structures, Version 22), and was 136.70. The value of multivariate normality (Raykov & Marcoulides, 2008) is required to be less than $[p(p + 2)]$, where p equals the total number of observed indicators 72(74)=5328, (Raykov & Marcoulides, 2008); this was satisfied and the data considered fit to be analysed by AMOS.

5.3   Assessing the measurement model

Confirmatory factor analysis (CFA), as a part of structural equation modelling, is a means of assessing the measurement model by exploring the relationships between the items and scales (Harrington, 2009). As a preliminary step to SEM analysis, therefore, CFA was used to examine the psychometric properties of the measurement

instruments. Unlike exploratory factor analysis, CFA evaluates all of the items from the questionnaires used in the research model as part of one regression model, thereby analysing them simultaneously.

Confirmatory factor analysis using maximum likelihood estimation was conducted using Analysis of Moment Structure (AMOS) version 22 software. As recommended by Harrington (2009) and Kline (2010), different fit indices were used to examine the model fit. It is generally acknowledged that fit indices can be classified into the three categories: absolute fit indices; parsimony indices; and comparative indices (Brown, 2006). Absolute fit indices, such as the model chi-square (χ^2), normed chi-square (that is, the ratio of χ^2 to its degree of freedom) and standardised root mean square residual (SRMR), measure how well the proposed model reproduces the observed data (Teo, Ursavas, & Bahcekapili, 2012). Parsimonious indices are similar to the absolute fit indices except that they take the complexity of the model into account. An example of parsimonious indices includes the root mean square error of approximation (RMSEA). Finally, comparative fit indices are used to evaluate a model fit relative to an alternative baseline model (Harrington, 2009; Teo et al., 2012) and include the comparative fit index (CFI) and Tucker-Lewis index (TLI).

The model fit statistics for this study are reported in Table 5.4. Since the Chi-square goodness of fit test is sensitive to sample size (Marsh, Balla, & MacDonald, 1998), the model fit was determined using Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Increment Index of Fit (IFI), Standardised root mean square residual (SRMR) and Root Mean Square Error of Approximations (RMSEA). In essence, CFI and TLI values should be equal to or greater than 0.90 and FMSEA values of greater than 0.5 to indicate good empirical fit (Kline, 2010).

For the 72-item, nine-factor model identified in the EFA (see Table 5.1), the chi-square test was non-significant [χ^2 (1884) = 4558.22, *p*=0.001]; the other fit indices, IFI (0.941), TLI (0.93), CFI (0.94), RMSEA (0.038) and SRMR (0.044), indicated reasonable fit.

Table 5.1   Fit Indices of the proposed research model

Model fit indices	Model	Recommended guidelines	References
χ^2	4558.22 $p < 0.001$	Non-significant	Joreskog & Sorbom, 1993; Klem, 2000; Kline, 2010; McDonald & Ho, 2002; Meeuwisse, Severiens, & Born, 2010
χ^2/df	1.90	< 3	Hu & Bentler, 1999; Kline, 2010
TLI	.93	≥ 0.90	Hu & Bentler, 1999; Klem, 2000; McDonald & Ho, 2002;
CFI	.94	≥ 0.90	Bollen, 1989; Byrne, 2010; Hu & Bentler, 1999; Klem, 2000; McDonald & Ho, 2002;
RMSEA	.038	< 0.05	Browne & Cudeck, 1993; McDonald & Ho, 2002
SRMR	.044	< 0.05	Hu & Bentler, 1999; Klem, 2000; McDonald & Ho, 2002

N =618 students in 15 schools.

Based on Kline's (2010) recommendation that the χ^2 is sensitive to sample size (Schumacker & Lomax, 2004), it was established that the model had acceptable fit to the data (see Table 5.1). Based on these results, each of the scales were considered to be fit for use for SEM purposes.

The measurement model was assessed further to confirm whether the factor structure was valid and reliable for SEM purposes in terms of its construct reliability, convergent validity (reported in Section 5.4.1), and discriminant validity (reported in Section 5.4.2).

5.3.1   *Construct reliability and convergent validity*

Reliability and convergent validity of the measurement items was assessed by examining the item reliability of each measure, the composite reliability (CR) of each construct, and the average variance extracted (AVE), as proposed by Fornell and Larcker (1981).

The CR was used as measure of item reliability. The interpretation of the composite reliability is similar to that of Cronbach's alpha (1951), except that it also takes into

account the actual factor loadings rather assuming that each item is equally weighted in the composite load determination (Wang, Wu, & Wang, 2009). The results, reported in Table 5.3, indicate that the CR ranged from 0.89 to 0.93 for different scales, suggesting good reliabilities, as they exceeded the acceptable criterion of 0.60 suggested (Bagozzi & Youjae, 1989; Fornell & Larcker, 1981).

To further examine the convergent validity of the measurement model, the AVE was used. AVE measures the amount of variance captured by the construct in relation to the amount of variance attributable to measure error. The AVE values, reported in Table 5.2, ranged from 0.51 to 0.62 — higher than 0.50, the minimum benchmark recommended by Fornell and Larcker (1981), Hair (1992) and Nunnally and Bernstein (1994). This means that more than one-half of the variance observed in the items was accounted for by their hypothesised factors.

Given these results, all factors in the measurement model were considered to have had adequate reliability and convergent validity.

Table 5.2   Construct reliability, average variance extracted and discriminant validity

Construct	CR	AVE	TS	PC	SC	AD	RC	RSH	MI	R	WB
TS	.89	.51	**(.71)**								
PC	.90	.53	.35**	**(.73)**							
SC	.93	.62	.55**	.70**	**(.79)**						
AD	.90	.54	.49**	.41**	.49**	**(.73)**					
RC	.91	.56	.55**	.30**	.52**	.42**	**(.75)**				
RSH	.89	.51	.54**	.39**	.50**	.46**	.51**	**(.71)**			
MI	.91	.56	.38**	.44**	.45**	.45**	.38**	.50**	**(.75)**		
R	.91	.57	.40**	.40**	.51**	.32**	.38**	.39**	.38**	**(.75)**	
WB	.93	.61	.42**	.43**	.63**	.33**	.39**	.39**	.34**	.58**	**(.78)**

Note: The bold elements in the main diagonal are the square roots of AVE.
Composite reliability (CR) is computed by $(\sum \lambda)^2 / (\sum \lambda)^2 + \sum (1 - \lambda^2)$; average variance extracted (AVE) is computed by $\sum \lambda^2 / \sum \lambda^2 + \sum (1 - \lambda^2)$, where λ = standardised loading.
**$p < 0.01$
$N = 618$ students in 15 schools.

5.3.2   *Discriminant validity*

The discriminant validity of the constructs was assessed to identify the degree to which they differed from each other. As suggested by Barclay, Higgins and

Thompson (1995), the criterion for discriminant validity is that the square root of average variance extracted (AVE) for each construct should be larger than the correlation of that construct with all of the other constructs in the research mode. The results reported in Table 5.2 show that the shared variances between the factors (ranging from 0.51 to 0.62) were lower than the square root of the average variance extracted of the individual factors (ranging from 0.71 to 0.79). These findings support the discriminant validity of the individual constructs.

Overall, the convergent and discriminant validity results of the factor structure and constructs of the WHITS and WERMI were valid and reliable, and therefore considered to be suitable for the purpose of SEM. The results indicated that the factor loadings and constructs of the measurement used were valid and reliable.

5.4 Confirmation of the research model

To ensure the confirmatory power of the research model, the coefficient of determination (R^2) of the endogenous variables was calculated. The explanatory powers of the model were assessed by calculating the coefficient of determination (R^2) of the three endogenous variables (wellbeing, resilience, moral identity). As suggested by Diamantopoulos and Siguaw (2000), a high multiple square correlation value denotes high reliability for the indicator concerned. The results, reported in Table 5.3, shows the R^2 value for each endogenous variable was higher than the minimum requirement of 0.10, as recommended by Santosa et al. (2005).

Table 5.3   Coefficient of determination (R^2) of the endogenous variables

Endogenous Variables	Coefficient of determination (R^2)
Resilience	.33
Moral Identity	.44
Wellbeing	.56

N =618 students in 15 schools.

These results imply that students' perceptions of their school climate explained 33% of the variance in resilience, 44% of the variance in students' sense of moral identity, and 56% of the variance in students' sense of wellbeing.

Overall, the results generated during the assessment of the measurement model and the coefficient of determination confirmed that the proposed research model was suitable for SEM.

5.5   Testing the hypotheses

To investigate the relationship between students' perception of school climate and their wellbeing, resilience and moral identity, structural equation modelling (SEM) with maximum likelihood estimation using Analysis of Moment Structure (AMOS) was used. The hypothesised model used in this study involved nine scales, as shown in Figure 3.1, providing a total of 18 hypothesised relationships for the study.

This section outlines the results of testing the hypotheses which are developed from Research Objectives 2 and 3. Research Objective 2 sought to examine the relationships between students' perceptions of the school climate and self-reports of wellbeing, resilience and moral identity, and Research Objective 3 sought to investigate the interrelationships between the student outcomes.

As described in Chapters 1 and 3, this study further explores the potential relationship within these dimensions. The research model used for SEM, described in Figure 5.1, hypothesises that each of the six school climate dimensions (Teacher Support, Peer Connectedness, School Connectedness, Affirming Diversity, Rule Clarity and Reporting and Seeking Help) influences student wellbeing, moral identity and resilience. Additionally, the model hypothesises that students' sense of resilience will influence their wellbeing and moral identity, and that students' sense of moral identity will influence their wellbeing.

The path coefficients and *t*-value for paths in the proposed model are reported in Table 5.4. According to Shipley (2000) for a causal link between variables to be considered significant, it needs to have a path coefficient of greater than 0.05. As suggested by Cohen (1992) and Kline (2010), effect sizes with values 0.10 to 0.29 are considered to be small, those with values 0.30 to 0.49 are considered medium, and values with 0.50 to 1.0 are considered to be large. Furthermore, a parameter is

required to have a *t*-value greater than 1.96 and smaller than -1.96 (Fornell & Larker, 1981) to be considered significant.

Table 5.4   Standardised path coefficients and *t*-value

Hypothesised relationship	Standardised Path Coefficient	*t*-value
Teacher Support (TS) → Resilience (R)	.13	2.09*
School Connectedness (SC) → Resilience (R)	.18	3.07**
Rule Clarity (RC) → Resilience (R)	.14	2.34*
Reporting & Seeking Help (RSH) → Resilience (R)	.14	2.28*
Affirming Diversity (AD) → Resilience (R)	-.02	-.37 ns
Peer Connectedness (PC) → Resilience (R)	.15	3.05**
Resilience (R) → Wellbeing (WB)	.43	8.96***
Teacher Support (TS) → Wellbeing (WB)	.01	1.18 ns
Peer Connectedness (PC) → Wellbeing (WB)	-.02	-.31 ns
School Connectedness (SC) → Wellbeing (WB)	.42	5.69***
Affirming Diversity (AD) → Wellbeing (WB)	-.03	-.58 ns
Rule Clarity (RC) → Wellbeing (WB)	.02	.45 ns
Reporting & Seeking Help (RSH) → Wellbeing (WB)	-.05	-.93 ns
Teacher Support (TS) → Moral Identity (MI)	-.02	-.27 ns
Peer Connectedness (PC) → Moral Identity (MI)	.30	3.97***
School Connectedness (SC) → Moral Identity (MI)	-.13	-1.58 ns
Affirming Diversity (AD) → Moral Identity (MI)	.21	4.41***
Rule Clarity (RC) → Moral Identity (MI)	.12	2.07 *
Reporting & Seeking Help (RSH) → Moral Identity (MI)	.26	4.45***
Resilience (R) → Moral Identity (MI)	.15	3.03**
Moral Identity (MI) → Wellbeing (WB)	.03	.60 ns

Note: ***p <0.001; ** p <0.01; * p <0.05; ns (non-significant)

N =618 students in 15 schools.

Overall, 12 out of 18 possible relationships were statistically significant (p<0.001) with a *t*-value within 1.96 and -1.96. Additionally, the results indicated that all statistically significant relationships were positive in direction. These direct relationships are reported in Table 5.4. Figure 5.1 shows the statistically significant paths, including the standardised path coefficients. These results, based on the two research objectives: the impact of school climate on the three outcomes (Section 5.6.1.1) and the inter-relationships between the three outcome variables (Section 5.6.1.2), are reported below. Finally, this section reports on the indirect relationships.
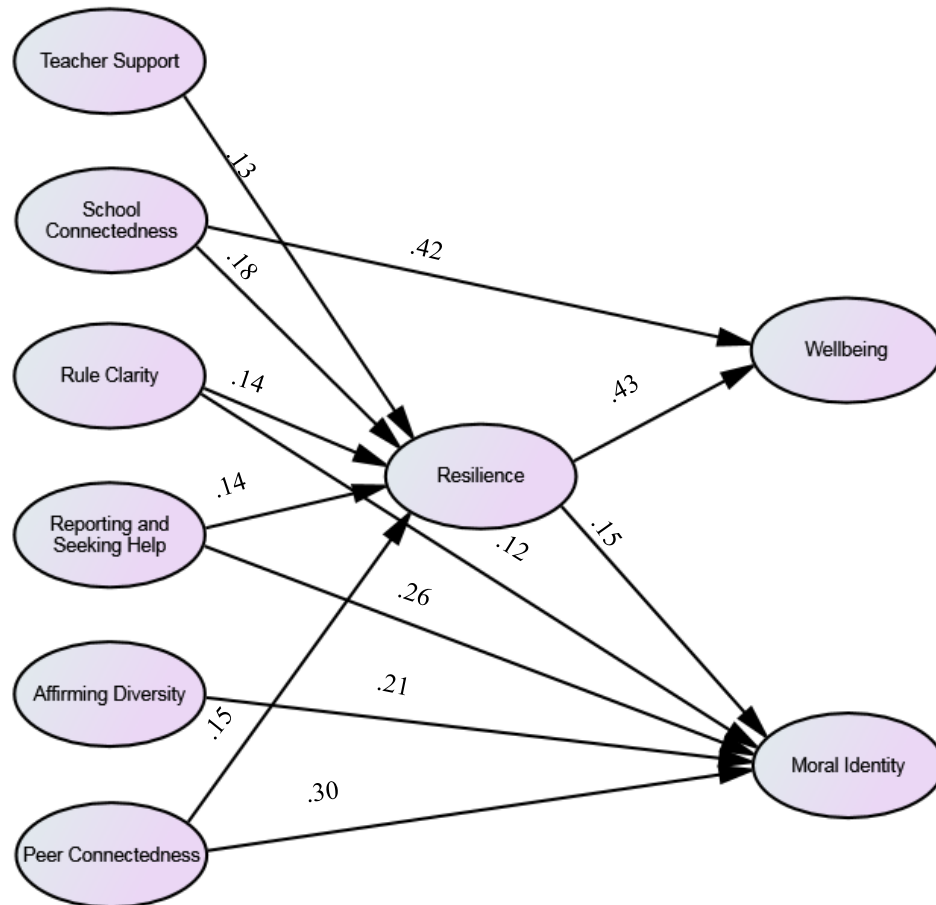
Figure 5.1 Structural equation model for students' perceptions of school climate and the relationship of these variables with sense of resilience, moral identity and wellbeing

NB Paths that were not significant are not shown. All coefficients are significant (*p*<0.001; *p*<0.01; *p*<0.05). Standardised regression coefficients are reported.

5.5.1   *Impact of the school climate on student outcomes*

The first research objective sought to examine the magnitude and direction of the relationships between school climate dimensions and the three student outcomes. The results indicate that ten of the fifteen possible relationships were statistically significant, each of which are reported below.

The first hypothesis predicts that school climate is related to student wellbeing. The results, reported in Table 5.6, indicate that only one school climate dimension out of a possible six had a direct positive association with student wellbeing. Specifically, the more students perceived they were connected to their school, the greater their self-reports of wellbeing (β=0.42, p<0.001).

The second hypothesis predicts that school climate is related to resilience. The results, as reported in Table 5.4, show that students' perceptions of five of the six school climate dimensions were related to their sense of resilience. Specifically, students' sense of resilience was directly linked to their perceptions of the teachers' support (β=0.13, p<0.05), peer connectedness (β=0.15, p<0.01), school connectedness (β=0.18, p<0.001), the clarity of the rules (β=0.14, p<0.05) and whether mechanisms for reporting and seeking help were in place (β=0.14, p<0.05). Essentially, if the students felt supported by teachers and their peers and valued at the school, then they had a greater sense of resilience. Further, if the rules and avenues for reporting problems and seeking help were clear, then their sense of resilience was also increased.

The third hypothesis predicts that school climate is related to moral identity. As reported in Table 5.4, the results indicate that students' perceptions of four of the six school climate scales were positively associated with their sense of moral identity. These scales, rule clarity (β=0.12, p<0.05), peer connectedness (β=0.30, p<0.001), affirming diversity (β=0.21, p<0.001) and reporting and seeking help (β=0.26, p<0.001) all were linked to students' sense of moral identity. The statistically significant influence of these four dimensions suggest that, when students perceive themselves as accepted by the peers, affirmed, and have clear boundaries with avenues to report and seek help, they are likely to have a stronger moral identity.

5.5.2   *Interrelationships between the outcome variables*

The third objective sought to examine the magnitude and direction of the interrelationships between the three student outcomes. The results, which indicate that two of the three possible relationships are statistically significant, are discussed below.

The fourth hypothesis predicts that students' self-reports of resilience are related to their wellbeing. The results indicate that resilience has the largest influence on wellbeing (β=0.43, p<0.001) in the research model (see Table 5.6). These findings suggest that student wellbeing can be improved by developing their resilience.

The fifth hypothesis predicts that resilience is related to moral identity. As reported in Table 5.4, students' perception of moral identity is statistically significantly related to their resilience (β=0.15, p<0.01). That is, when students reported an increased sense of resilience they also reported an increased sense of moral identity.

The sixth hypothesis predicts that moral identity influences wellbeing. The results reveal no significant relationship between these two variables.

5.5.3   *Indirect Relationships*

As well as the direct relationships (reported above) there also were indirect relationships identified. If interpreted in causal terms, an indirect relationship or effect implies a hypothesis that an independent variable causes a mediating variable that, in turn, causes a dependent variable (Mackinnon, Lockwood, & Williams, 2004). For example, students' sense of resilience mediates the relationships between teacher support, school connectedness, rule-clarity, reporting and seeking help and peer connectedness on the one hand, and their sense of wellbeing and moral identity on the other. The structural relations in the model were interpreted as the effect of one latent variable on the other. The standardised total effect, direct effect, and indirect effect associated with each of the eight constructs are reported below in Table 5.5. The indirect relationships are discussed below within the different hypotheses.

Table 5.5   Standardised Direct, Indirect, and Total Effects on Resilience, Wellbeing and Moral Identity

Scale	Resilience			Wellbeing			Moral Identity		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
RSH	.14*	.00	.14*	-.05	.07	.02	.26***	.02***	.28***
TS	.13*	.00	.13*	.06	.06	.12	-.02	.02	.00
RC	.14*	.00	.14*	.02	.06	.09	.12*	.02*	.14*
AD	-.02	.00	-.02	-.03	-.002	-.03	.21***	.00	.21***
SC	.18**	.00	.18**	.42***	.08***	.50***	-.13	.04	-.11
PC	.15**	.00	.15**	-.02	.07	.05	.30***	.02***	.33***
R	-	-	-	.44***	.004***	.43***	.15**	.00	.15**
WB	-	-	-	-	-	.00	.03	.00	.03
MI	-	-	-	.03	-	.03	-	-	-

***$p<0.001$; ** $p<0.05$

N =618 students in 15 schools.

The first hypothesis predicts that school climate influences student wellbeing. As shown in Table 5.5, the results indicate that one school climate dimension, school connectedness, had a significant indirect relationship to student wellbeing (β=0.08, $p<0.001$). Given the already significant direct relationship of school connectedness with wellbeing (β=0.42, $p<0.001$) the cumulative influence results (β=0.50, $p<0.001$) provide an important insight into an aspect of school climate for educators.

For the second, fifth and sixth hypotheses there were no significant indirect relationships.

The third hypothesis predicts that school climate influences moral identity. The results, reported in Table 5.5, reveal that three of the six school climate dimensions had indirect relationships with moral identity. That is, reporting and seeking help (β=0.02, $p<0.001$), rule clarity (β=0.02, $p<0.05$) and peer connectedness (β=0.02, $p<0.001$) were indirectly related to students' self-reports of their moral identity.

The fourth hypothesis predicts that resilience influences wellbeing. As reported in Table 5.5, resilience was found to be indirectly associated with student wellbeing (β=0.004, $p<0.001$). That is, students' sense of resilience mediates their sense of wellbeing.

5.6   Chapter summary

In this chapter the researcher reports the results for the second and third research objectives of the present study, which include the analysis of relationships between school climate dimensions and students' wellbeing, moral identity and resilience, and the interrelationships between the student outcomes.

Data collected from 618 students using the six-scale WHITS and WERMI were analysed utilising structural equation modelling (SEM). This analysis investigated the relationship between school climate dimensions and students' wellbeing, moral identity and resilience (Research Objective 2) and the interrelationships between the student outcomes (Research Objective 3). The data analyses assessed the measurement properties and then tested the hypothesised research model. Initial confirmatory factor analysis (CFA) results indicate that the factor loadings and constructs of the measurement used were valid and reliable. Further, the results from the analysis of the model fitness suggest that the research model is sound and suitable for SEM purpose.

The results indicate that one school climate dimension was directly related to students' wellbeing (β=0.42, p<0.001), four school climate dimensions were positively associated with students' moral identity (ranging from β=0.12 to β=0.30) and five school climate dimensions were related to a students' resilience (ranging from β=0.13 to β=0.18). Further, the results indicate that resilience has a strong association with a students' wellbeing (β=0.43) and moral identity (β=0.15). As well as the direct relationships there were several indirect relationships. School connectedness had a significant indirect relationship to student wellbeing (β=0.08, p<0.001), three of the six school climate dimensions had indirect relationships with moral identity, and resilience was found to be indirectly associated with student wellbeing (β=0.004, p<0.001).

The discussion of these results is presented in the following chapter, in which the researcher explores the significance, educational implications and limitations of this study.

CHAPTER 6

DISCUSSION AND CONCLUSION

6.1   Introduction

The significance of school climate and its effect on students' health and development has become an increasing research focus over the last two decades (Bocchi, Dozza, Chianese, & Cavrini, 2014; Rowe, Stewart, & Patterson, 2007). Past research has found that the school climate is a powerful determinant of student learning and overall development (Deal & Peterson, 1999; Dessell, 2010; Schoen & Teddlie, 2008; Van Houtte, 2005); therefore, this study explores this relationship further. There have been a number of studies that have explored the relationship between school climate and student development (Brady, 2006; Cohen, 2001; Frydenberg, Care, Freeman, & Chan, 2009; Gray & Hackling, 2009; Wang, Selman, Dishion, & Stormshak, 2010); this study builds on these by examining specific features of a school climate in relation to student outcomes that have had limited attention to date, including moral identity, resilience and, to a lesser extent, wellbeing.

Data was collected using two instruments: the What's Happening In This School? (WHITS) and Wellbeing, Resilience and Moral Identity Instrument (WERMI). The WHITS is a 48-item, six-scale questionnaire (Aldridge & Ala'i, 2013) (described in Section 6.2.1.1) that measures students' perceptions of the school climate. The WERMI, a 24-item questionnaire, comprises three modified scales; the WHO-5 Wellbeing Index (World Health Organisation, 1998), Resilience Scale (Aldridge & Ala'i, 2013), and the Moral Identity Scale (Aldridge & Ala'i, 2013).

The WHITS and WERMI were administered to 618 high school students drawn from 15 independent secondary schools in South Australia. The students were all enrolled in Year 11 and aged between 16 and 17 years.

In this chapter the researcher concludes the thesis by summarising and discussing the results that were detailed in Chapters 4 and 5, and providing information about the

limitations and significance of the study. The chapter is organised under the following headings:

- Discussion of the findings (Section 6.2);
- Limitations of the study (Section 6.3);
- Summary of recommendations (Section 6.4);
- Significance of the study (Section 6.5); and
- Concluding remarks (Section 6.6).

6.2   Discussion of the findings

In this section the researcher provides a summary and discussion of the results pertaining to each of the research objectives. The key findings and a discussion of each are provided for: the validity and reliability of the instruments (Section 6.2.1); the relationships between students' perceptions of the school climate and self-reports of wellbeing, moral identity and resilience (Section 6.2.2); and the interrelationships between students' perceptions of their wellbeing, moral identity and resilience (Section 6.2.3).

6.2.1   *Validity and reliability of instruments*

The first research objective was

> To provide evidence to support the validity and reliability of instruments developed to assess students' perceptions of the school climate and self-reports of wellbeing, moral identity and resilience and for use in independent secondary schools in South Australia.

The data collected from 618 high school students from 15 independent secondary schools in South Australia was used to provide evidence for the reliability and validity of the WHITS and WERMI in terms of their factor structure, internal consistency, reliability, and ability to differentiate between scales. The results are

summarised separately for the WHITS (Section 6.2.1.1) and WERMI (Section 6.2.1.2) and each discussed accordingly.

6.2.1.1   *Validity and reliability of the WHITS questionnaire*

To provide evidence to support the reliability and validity of the WHITS, the data was analysed in various ways. First, to assess the factor structure, principal axis factor analysis with oblique rotation was used. Second, the Cronbach alpha reliability coefficient was calculated to provide an index of internal consistency reliability. Third, an ANOVA was carried out to examine the ability of scales to differentiate between schools. Finally, the correlation matrix, obtained through oblique rotation, was used to examine the discriminant validity.

Key findings for the validity and reliability of the WHITS are summarised below.

- The 48-item, six-scale WHITS displayed satisfactory factorial validity. Each item had a factor loading of at least 0.30 on its *a priori* scale and less than 0.3 on all other scales. The eigenvalues for all scales were above 1 and the total proportion of variance accounted for was 64.71%.

- The internal consistency reliability coefficients for the six WHITS scales, calculated using Cronbach alpha reliability, ranged from 0.89 to 0.94.

- The ANOVA results indicated that five of the six WHITS scales (Teacher Support, School Connectedness, Affirming Diversity, Rule Clarity and Reporting and Seeking Help) were able to differentiate significantly ($p<0.01$) between the perceptions of students in different schools.

- The discriminant validity results indicated that all six WHITS scales were distinctive, with the highest correlation between factors being 0.44.

The WHITS is a relatively new instrument, therefore there are few studies that have involved its use. However, the evidence, outlined above, supports the validity and reliability of the WHITS and compares favourably with past research that has utilised the WHITS in Australia (Aldridge & Ala'i, 2013) involving 4067 high school students from eight schools in Western Australia. The validity of the WHITS for use

in South Australia provides support for this questionnaire as a sound and reliable survey for future school climate research.

6.2.1.2   *Validity and reliability of the WERMI questionnaire*

As with the WHITS, the factor structure of the WERMI questionnaire was examined using principal axis factor analysis with oblique rotation and Kaiser normalisation. To provide an index of internal consistency reliability, the Cronbach alpha reliability coefficient was calculated. Finally, to ensure the questionnaire was able to distinguish between the perceptions of students in different schools, one-way ANOVA was used to test validity. Key findings for the validity and reliability of the WERMI are summarised below.

- The 24-item, three-scale WERMI displayed acceptable factorial validity.
- The results of the factor analysis indicated that all items had a factor loading of at least 0.30 on their *a priori* scale and less than 0.30 on all other scales
- The eigenvalues (ranging from 2.11 to 9.22 for different scales) were all greater than one and the total percentage variance accounted for was 61.56%.
- The Cronbach alpha reliability coefficients for the three WERMI scales were high and ranged from 0.89 to 0.93. These results satisfied the conventionally accepted cut-off of 0.70 (Nunnally & Bernstein, 1994).
- The ANOVA results suggest that two of the three scales were able to differentiate significantly ($p<0.01$) between the perceptions of students in different schools.

These results provided strong evidence to support the reliability and validity of the WERMI when used with this sample. These results were comparable with past research that used the sub-scales separately in their original form. Specifically, the findings were comparable to past studies involving the WHO-5 (Aldridge & Ala'i, 2013; Allgaier et al., 2011; Bonsignore, Barkow, Jessen, & Heun, 2001; Love, Andersson, Moore, & Hensing, 2014) and the Resilience Scale (Gillespie & Allen-Craig, 2009; Wagnild & Young, 1993). One past study that has involved this scale (Aldridge, Ala'i, & Fraser, 2016), involving 4076 Western Australian students reported similar reliability.

The WERMI includes one relatively new scale, the Moral Identity Scale. Therefore, this study provides further evidence of the reliability of the instrument of this scale.

Overall, the results suggest that both the WHITS and WERMI were valid and reliable when used with this sample to measure students' perceptions of their school climate and their wellbeing, moral identity and resilience. These findings suggest that the data could be used with confidence to address subsequent research objectives.

6.2.2   Relationships between school climate and student wellbeing, moral identity and resilience

The second research objective was:

> To explore the relationships between students' perceptions of the school climate and their self-reports of:
> - wellbeing;
> - resilience; and
> - moral identity.

To address this objective, the research model (see Figures 1.1 and 3.1) was tested. The findings indicated a good fit to the data with adequate reliability, convergent validity and discriminant validity. These findings indicated that the proposed research model was suitable for SEM. The first three hypotheses that were tested were:

> *Hypothesis 1   School climate is related to students' wellbeing*
> *Hypothesis 2   School climate is related to students' resilience.*
> *Hypothesis 3   School climate is related to students' moral identity.*

The results indicated that 10 of the 18 hypothesised relationships were statistically significant. The key findings are summarised below.

- One school climate dimension, school connectedness (β=0.42, p<0.001), was positively associated with a student's wellbeing.

- Students' perceptions of five of the six school climate scales were related to student resilience, these being:

  o School connectedness (β=0.18, p<0.001);

  o Teacher connectedness (β=0.13, p<0.05);

  o Peer connectedness (β=0.15, p<0.001);

  o Clarity of the rules (β=0.14, p<0.05); and,

  o Reporting and seeking help (β=0.14, p<0.05).

- Students' perceptions of four of the six school climate scales were positively associated with their sense of moral identity, these being;

  o Rule clarity (β=0.12, p<0.05);

  o Peer connectedness (β=0.30, p<0.001);

  o Affirming diversity (β=0.21, p<0.001); and,

  o Reporting and seeking help (β=0.26, p<0.001).

These results are discussed in terms of: the relationship between school climate and students' wellbeing (Section 6.2.2.1); the relationship between school climate and students' resilience (Section 6.2.2.2); and the relationship between school climate and students' moral identity (Section 6.2.2.3).

6.2.2.1   The relationship between school climate and students' wellbeing

While the first hypothesis predicted that school climate is related to student wellbeing, the results indicate that only one of the six school climate dimensions was associated with student wellbeing, namely, school connectedness. Other aspects of the school climate had an indirect effect on wellbeing, including social connectedness affirming diversity and guidelines regarding interpersonal behaviour. Each of these is discussed below.

School connectedness. The findings suggest that the more that students perceived that they were connected or felt a sense of belonging to the school, the greater their

self-reports of wellbeing were (β=0.42, p<0.001). Overall, this finding corroborates past studies that have examined the impact of school connectedness on students' mental health and psychosocial wellbeing. Past studies have found that students' wellbeing was enhanced when they were able to establish and develop positive, meaningful relationships and sense of belonging (see for example: Bond et al., 2007; Kupermine, Leadbeater, Emmons, & Blatt, 1997; Mitra, 2004; Shochet, Dadds, Ham, & Montague, 2006; Way, Reddy, & Rhodes, 2007). Another study by La Guardia, Ryan, Couchman and Deci (2000), found that genuine 'adult-student partnership' school structures not only helped to meet students' developmental needs, but also served to enhance their wellbeing. Further, studies by Barber, Schluterman and Barber (2008) and Jose, Ryan and Pryor (2012) concluded that young people's connectedness to school is linked to reports of better adjustment, health and wellbeing. Conversely, studies have demonstrated that health-risk behaviours are linked to students' reports of poor connection to school (Marcus & Sanders-Reio, 2001; Resnick, Harris, & Blum, 1993; Teese & Polesel, 2003; Willms, 2003). These studies highlight the detrimental effect of a lack of school connectedness and the important role schools play as "antecedents of adolescent depression" (Millings, Buck, Montgomery, Spears, & Stallard, 2012, p. 1061). In summary, this study supports the body of past research which found students with good school connectedness are less likely to experience subsequent mental health issues (Bond et al., 2007) and more likely to function at an optimal level (Johnson, 2009).

Given that school connectedness was found to positively influence student wellbeing, it is recommended that schools consider multiple avenues to foster a students' sense of belonging *(Recommendation 1)*. A strategic, purposeful, whole school approach that is reflected in the vision and in the everyday interactions would significantly enhance a student's connectedness and thus wellbeing. One example of how a school could achieve this might be to establish an identity nurturing process, which was found by Rich and Schachter (2011) to have a powerful impact on students' wellbeing. Such a process includes student recognition and encouragement across multiple areas of the school. For example, the simplicity of a daily greeting has the potential to build, nurture and recognise the dignity and presence of a person. Further, students could be provided with opportunities to share opinions (Engles, Aelterman, Van Petegem & Schepens, 2004), collaborate with adults to address

school issues, and take the lead in seeking change. From the classroom perspective, teachers could adopt a pedagogical approach that enables students to be active participants in their learning and find meaning and voice in curriculum and assessment frameworks. Overall, past research has shown that, through these interventions, a young person's connectedness and active participation are enhanced and have been linked to reports of better adjustment, health and wellbeing (Barber, Schluterman, & Barber, 2008; Jose, Ryan, & Pryor, 2012).

Although the present study shows no direct relationships between wellbeing and the other school climate dimensions, it does indicate that all of the school climate dimensions have an indirect influence when mediated by resilience. This finding further confirms the recent emphasis on developing resilience as a means to positively affect student development in terms of wellbeing, happiness and self-determination (Kristjansson, 2012; Seligman et al, 2009; Sin & Lyubomirsky, 2009). Possible reasons for these results are offered under the following subheadings: social connectedness; affirming diversity; and guidelines regarding interpersonal behaviour.

Social connectedness. Though peer connectedness and teacher support were not found to have a direct effect on student wellbeing, when mediated by resilience they had an indirect positive influence. This finding corroborates past research which confirms that resilience positively impacts student wellbeing (Agbakwaru & Stella, 2012; Klohnen, 1996; Werner & Smith, 1992). Furthermore, it suggests that both peer and teacher relationships can have a significant influence on a student's resilience (Bernard, 1993; Hurd, Zimmerman, & Xue, 2009; McNeely, Nonnemaker & Blum, 2002) which in turn, can positively influence their sense of wellbeing (Benetti & Kambouropoulos, 2006; Mak, Ng, & Wong, 2011).

A possible explanation of the findings with respect to the lack of direct teacher and peer influence could be related to the dualistic nature of relationships. For example, Mounts and Steinberg (1995) have suggested that the limited impact of peer connectedness could be because of its double-edged nature; that is, it is beneficial when peer norms are positive and detrimental when peer norms are negative. For example, positive peer connectedness has been viewed as a vital protective factor and considered critical to promoting wellbeing (Fuller, McGraw, & Goodyear, 1999;

McGraw, Moore, Fuller, & Bates, 2008) whilst poor peer connectedness has been linked to severe emotional symptoms such as depression and suicidal ideation (Govender, Naicker, Meyer-Weitz, Fanner, Naidoo & Penfold, 2013: Millings, Buck, Montgomery, Spears, & Stallard, 2012). Given that positive peer connectedness has been associated with student wellbeing, it is recommended that schools should encourage and promote strong peer relationships *(Recommendation 2)*. Specifically, teachers could improve the quality of peer relationships by fostering peer tutoring and group work, through classroom, year-levels and cross-age activities (Oldfield, Humphrey & Hebron, 2016).

Similarly, student-teacher relationships can have a positive influence on students' wellbeing if they are healthy (Bond, Carlin, Thomas, Rubin, & Patton, 2001) and a detrimental effect if they are not (Osterman, 2000; Marcus & Sanders-Reio, 2001). Aelterman, Engles, Van Petegem and Verhaeghe (2007, p. 296) have suggested that teachers, in fact, play a "crucial role in the wellbeing of pupils" highlighting the significance of their influence and impact. Given past studies have indicated that a student's wellbeing is enhanced through positive teacher-student relationships (Engles, Aelterman, Van Petegem & Schepens, 2003), it is recommended that teachers adopt clear, positive practices that nurture and enhance their relationships with their students *(Recommendation 3)*. Further, past studies suggest that teachers need to develop a heightened reflective awareness of their influence on students, to stimulate greater consciousness of the effects of their actions and their attitudes on students (Aelterman, Engles, Van Petegem & Verhaeghe, 2007; Engles, Aelterman, Van Petegem & Schepens, 2003; Van Damme, Van Landeghem, De Fraine, Opdenakker & Onghena, 2001). It is recommended therefore that future studies explore both student and teacher perceptions in regards to social connectedness, to enhance understanding and increase the effectiveness of explicit intervention strategies *(Recommendation 4)*.

Interestingly, Bond et al. (2007), found that school connectedness may be as important for good mental health outcomes as social connectedness (peer and teacher relationships). Their findings suggest that young people who reported high social connectedness but low school connectedness were at greater risk of poor mental health than those who reported higher school connectedness. This finding is

congruent with this study, confirming the importance of social connectedness and also the potential 'double-edged nature' of relationships in their impact on student outcomes. It is recommended therefore that future studies explore both the positive and negative aspects of relationships and how they are related to students' perception of belonging *(Recommendation 5)*.

Affirming diversity. Past studies that have explored the impact of a school on a student's socialisation have generally focused on the negative impact (Fraser, 1980; Rutter, Maughan, Moretimore, Ouston, & Smith, 1979). Research has identified how students' wellbeing is affected when they experience hostile school environments that include bullying, prejudice or victimisation (Baldry, 2004; Carney, 2008; Rigby, 2006). Further, unsupportive school environments that ostracise and marginalise individuals significantly contribute to emotional ill-being (Hammen, 1992; McGraw, Moore, Fuller & Bates, 2008). This study built on these past studies to explore this relationship further by focusing on the potential positive influence of a school that affirms diversity. However, the results of this study did not show any statistically significant results, neither confirming nor contradicting results from past studies. Given that the findings of past studies focused generally on the impact of a hostile school environment rather than an inclusive/affirming school environment, it is recommended that future research explores both positive and negative school climate influences on students' wellbeing *(Recommendation 6)*. It is also worth noting that schools, like society, may not always affirm diversity, therefore contributing to a broader societal pre-existing problem/viewpoint. To that end, it is recommended that future research examines the extent to which a school affirms diversity and in turn, the impacts this has on students *(Recommendation 7)*.

Guidelines regarding interpersonal behaviour. The two school climate dimensions associated with creating an orderly environment — rule clarity and reporting and seeking help — were found to have an indirect influence on a student's wellbeing when mediated by resilience. These results support past research which reports that a disciplinary climate in schools can predict student health and wellbeing outcomes (Saab & Klinger, 2010). In early school climate research, Samdal (1998) found that adequate expectations in schools were an important predictor of a student's wellbeing. Furthermore, Virtanen, et. al. (2009) found that when students felt safe

and included at school, they reported more positive health and wellbeing. Given that previous research has directly linked a school's discipline climate to non-academic outcomes (Ma & Klinger, 2000; Ma, Phelps, Lerner, & Lerner, 2009; Ma & Willms, 2004), it is recommended that future research include young adolescents (Year 8 to 10) as they generally have greater interaction with school discipline structures *(Recommendation 8)*.

Overall, these findings provide further evidence to suggest that developing student resilience may in fact be a good starting point for educators wishing to develop student wellbeing.

6.2.2.2   *The relationship between school climate and students' resilience*

The results indicated that five out of the six school climate dimensions were directly related to student resilience. Overall, the more positive students perceived their school climate to be, the greater the self-reports of resilience. The relationships between specific school climate dimensions on student resilience are summarised below.

- The strongest relationship between a school climate dimension and students' resilience was school connectedness. In essence the more students perceived their sense of belonging or school connectedness (β=0.18, p<0.001) the greater their resilience.
- Students who perceived their teachers to be more supportive reported greater resilience (β=0.13, p<0.05).
- Students who perceived greater peer connectedness reported higher levels of resilience (β=0.15, p<0.001).
- When students' perception of rule clarity was more positive, they reported greater resilience (β=0.14, p<0.05).
- The greater perception that mechanisms for reporting and seeking help were in place, the greater self-reports of resilience (β=0.14, p<0.05).

Overall, the results indicated that the school climate (in terms of school connectedness, peer connectedness, teacher support, clarity of rules and reporting

and seeking help scales) had a positive effect on student resilience, highlighting the transformative potential of a school climate on students' development. These results provide support for Rutter's (1987) theory that development of resilience is a result of 'connectedness', in which linkages happen between individuals and schools. Specific insights into the influential school climate dimensions are discussed under the following subheadings: school connectedness; social connectedness; and guidelines regarding interpersonal behaviour.

School connectedness. The results revealed that of the six school climate dimensions, school connectedness had the most significant impact on student resilience. The positive relationship between school connectedness and students' resilience (β=0.18, p<0.01) suggests that when students feel valued by and connected to the school, they are likely to have a stronger sense of resilience. Overall, the results of this study further support the notion that relationships and a sense of belonging significantly influence a students' development (Danielsen, Samdal, Hetland, & Wold, 2009). For example, past research has highlighted the importance of social connection and sense of belonging (Hagerty & Williams, 1999; Hagerty, Williams, Coyne, & Early, 1996). Further, these findings support research that suggests that students learn resilience protective behaviours in an environment that nurtures the potential of individuals and is supportive, challenging and inclusive (Bernard, 2004; Coleman & Hagell, 2007; Luthar, 2006; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). These findings also support the work of Blum and Libbey (2004) and Resnick (2000), who found that connectedness to school during adolescence is a key area for building protective factors and lowering the rates of health-risk behaviours. In essence, supportive, challenging, protective climates within an inclusive school enable students to learn resilience protective behaviours (Bernard, 2004; Coleman, & Hagell, 2007; Luthar, 2006; Modecki, Barber, & Eccles, 2014; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). The findings also add support to Thapa, Cohen, Guffey and Higgins-D'Alessandro's (2013) theory that one of the integral dimensions of a school climate is 'relational'.

The results of this study suggest that it could be useful for educators to focus on dimensions of the school climate that promote connectedness and a sense of belonging as a means of improving student resilience. Specifically, schools could

provide opportunities and programs for staff and students to interact outside of formal lesson time, thus building student resilience (Kaufman & Gabler, 2004; Mahoney, Cairns, & Farmer, 2003; Marsh & Kleitman, 2003). The development and implementation of policies and procedures that increase cooperative school environments would not only enhance school connectedness but, in turn, increase students' resilience. Furthermore, enabling student voices to be heard, respected and valued in every aspect of the school environment (such as curriculum design, classroom pedagogy, formal student leadership structures and annual feedback surveys) would enhance connectedness, ownership and a sense of belonging.

Given this study's findings and past research, it is recommended that schools use a multi-faceted approach to enhance connectedness *(Recommendation 9),* as "no single intervention will be successful in engaging all students" (McGraw, Moore, Fuller & Bates, 2008, p. 35). Specifically, there are key predictable moments in students' schooling life (such as transition between year levels or commencement of new semesters or subjects) when schools could ensure targeted proactive prevention programs and structures are in place to enhance connectedness (Fuller, et. al, 1999).

Past studies have highlighted the vital role schools can play in students' lives, specifically providing them with a place to belong (Faircloth & Hamm, 2005; Osterman, 2000; Vaquera, 2009). Reflecting on Maslow's hierarchy of needs (Maslow, 1962) and that resilience is a key quality that enables an individual to thrive (Connor & Davidson, 2003), this study offers hopeful insights that suggest that schools can provide this sense of belonging and help to address a significant human need. This study offers further insight into one of the multidimensional outcomes that a sense of belonging provides for adolescents, namely resilience.

Social connectedness. My findings suggest that teacher support and peer connectedness have a positive influence on student resilience. These findings highlight the importance of social connectedness within the school environment and support past research that confirms the importance of relationships in adolescents for the development of resilience (Enthoven, 2007; Everall, Altrows, & Paulson, 2006; Rodriguez et al, 2003). Research by Alva (1991), Bernat (2009) and Blasi (1984) found that students were more resilient when they were in an environment where

people got along. Further, Heatherton and Nichols (1994) and Wagnild and Young (1993) reported that perceived presence of a supportive social network enhances a person's capacity to deal with life's challenges.

The positive relationship between teacher support and students' resilience (*β*=0.13, *p*<0.05) suggests that when teachers are supportive, students tend to be more resilient (Blasi, 1984; Hurd, Zimmerman, & Xue, 2009). This finding corroborates numerous past studies. For example, Krovetz (1999), Miller (2001) and VanderVen (2004) found that resilient students maintained that they had teachers who accepted, respected and trusted them and enabled them to excel. Further, Silins and Mulford (2004) argue that individuals develop their resilience through exposure to high quality staff who nurture a challenging, dynamic learning environment. The findings also highlight the continuing importance of teachers and their impact not only on students' academic outcomes but also on their resilience. Given this finding, it is recommended that schools provide clear recruitment and development plans, that seeks to establish and nurture a staff who are genuinely committed to best practice when working with young people *(Recommendation 10)*. Coupled with fostering academic engagement, it is recommended that teachers adopt relational practices to ensure their students feel 'known' and 'cared for' (Chhuon & Wallace, 2014) as this can directly enhance students' resilience (Nakkula & Toshalis, 2006) *(Recommendation 11)*.To further identify how teachers can build and nurture student resilience, it is recommended that future research includes qualitative data to provide causal explanations and possible insights into the relationships identified *(Recommendation 12)*.

Similarly, the results of this study show a statistically significant relationship between peer connectedness and students' resilience (*β*=0.15, *p*<0.01). Given that this study draws on the understanding that developing resilience is a relational process that emerges from a number of social relationships (Camfield, 2012), this result was not surprising, and corroborates past research. For example, Ryan and Patrick (2001) reported that one-on-one relationships are an important context in which social competence is realised, at the same time Blum (1998) identified the best predictor of psychological resilience is social support. The results of this study provide further evidence to suggest that peer connectedness influences student

resilience, and offers important insights and potential directions for schools seeking to enhance student resilience. Whilst it was beyond the scope of this study, it is important to understand how peer connectedness specifically develops and enhances resilience. To that end, it is recommended that future research includes qualitative data to provide causal explanations and possible insights into the relationships identified *(Recommendation 12)*.

Overall, the findings of the present study highlight the importance of social connectedness within the school environment, particularly in terms of positively influencing student resilience, and suggest that peer and teacher relationships are positive predictors of students' resilience. If students perceive their relationships with their teachers and peers to be supportive and positive, they are more likely to cope with adversity and stress and achieve goals regardless of obstacles. This builds on past research which suggests that a safe school environment that includes supportive peers and positive teacher relationships actively promotes resilience (Masten & Motti-Stefanidi, 2009; Patton et al., 2000). It also highlights the important role teachers and peers have in shaping a student's experience of school and in turn, their sense of resilience.

Given that schools are increasingly becoming a place where educators are implementing programs to enable students to cope with adversity (Johnson & Howard, 2007), this study offers a framework that could help to guide educators when choosing a program. These findings invite educators to consider enhancing relationships between teachers and their students and between students as a starting point for student resilience enhancement. Possible interventions that promote strong social networks and enhance relationships include: participation in extracurricular activities (Mahoney, Larson, & Eccles, 2005); cross-age mentoring (Bernard, 1993); cooperative rather than competitive goal structures (Roseth, Johnson, & Johnson, 2008); maintenance of moderate school size between 600 and 1000 students (Leithwood & Jantzi, 2009); service learning programs (Billig, 2000; Billig, Root, & Jesse, 2005); and creation of small learning communities (Lee & Ready, 2007; Maroulis & Gomez, 2008; Ready & Lee, 2008). The interventions chosen will vary according to context, finance and appropriateness; however, the purpose should remain steadfast.

Guidelines regarding interpersonal behaviour. Both rule clarity and reporting and seeking help were found to be related to student resilience. These links are each discussed below.

The positive relationship between rule clarity and students' resilience (β=0.14, p<0.05) suggests that when students understand rules and boundaries, they are likely to be resilient. This finding supports Rutter's (1987) theory that students build resilience when school expectations are clear, demanding and obtainable and supported with the resources necessary for students to achieve them. According to Bernard (2004), in schools that have clear rules, students are more likely to transform adversity and develop resilience despite risks and setbacks. Rules in turn convey a belief in the students' innate resilience and should focus on strengths and assets as opposed to problems and deficits. My finding also supports past research by Coutu (2002), which indicated that the most significant contribution a school can make to resilience is through their deeply embedded, visible values. Clear consistent boundaries and logical consequences are likely to enhance students' sense of self-determination and autonomy, which in turn enhances their resilience (Morrison & Allen, 2009).

The results indicate that there is a link between students' perception of avenues to report and seek help and student resilience (β=0.14, p<0.05). This positive relationship suggests that when students perceive that they have adequate support when reporting and seeking help they are likely to be more resilient. This finding supports past research which has identified that school structures provide developmental opportunities for student resilience (MacDonald & Validivieso, 2000). Furthermore, the results corroborate Mitra's (2004) findings that when students have clear avenues at school for their voice to be heard, their sense of agency, belonging and competence increase. According to Oldfather (1995) and Kabiru, Beguy, Ndugwa, Zulu and Jessor (2012), students who reported that their schools had models for prosocial behaviour (people, structures and systems) and adequate structures to enable student voice gained a stronger sense of their own abilities and awareness of self. These students also reported a greater sense of control

over their lives and a belief that they could make changes in their schools, not only for themselves but also for others.

In conclusion, both reporting and seeking help and rule clarity were found to positively influence student resilience. If the rules and avenues for reporting problems and seeking help were clear, then students' sense of resilience increased. Therefore, it makes sense that when schools are well organised and have clearly articulated rules and expectations, students are able to develop resilience. Based on these findings it is recommended that a school's grievance procedures and behaviour management system be accessible, robust, fair, transparent and protective of the victim *(Recommendation 13).* Further, educators should provide firm guidance, structure and challenge, enabling students to transform adversity into resilience at school and later, into success as adults (McMillan & Reed, 1994; O'Dougherty-Wright, Masten, & Narayan, 2013; Theron & Engelbrecht, 2012; Walsh, 2012).

Overall, the results of this study add weight to past studies which found significant relationships between resilience and the school climate.

6.2.2.3   *The relationship between school climate and students' moral identity*

The model explained 44% of the variance in students' sense of moral identity. Of the predictor variables, students' perceptions of four of the six school climate scales were positively associated with their sense of moral identity. The key findings are summarised below.

- The school climate dimension that had the most significant positive impact on a student's sense of moral identity was peer connectedness (β=0.30, p<0.001).
- A students' sense of moral identity was positively linked to the extent to which the school climate affirmed diversity (β=0.21, p<0.001).
- Rule clarity was positively associated with a student's sense of moral identity (β=0.12, p<0.05).

- Students who recorded that they had avenues for reporting and seeking help reported an increased sense of moral identity (β=0.26, p<0.001).

Overall, the results indicated that the school climate has an impact on students' moral identity formation. The school climate dimensions of peer connectedness, affirming diversity, rule clarity and reporting and seeking help can have a positive influence. Specific insights into the school climate dimensions that were statistically significantly related to moral identity are discussed under the following subheadings: social connectedness, affirming diversity and guidelines regarding interpersonal behaviour.

Social connectedness. The positive influence of peer connectedness on moral identity (β=0.30, p<0.001), suggests that moral development is relational and that individuals mediate their moral development through their interactions with their surroundings (Cote & Levine, 2002; Kroger, 2007; Penuel & Wertsch, 1995; Sfard & Prusak, 2009; Tappan, 2006). These findings support Aquino and Reed's (2002) social identity theory which suggests that individuals learn moral discernment through their dialogue with significant others in their lives. It supports the notion that strong prosocial relationships enable young people to be significantly influenced by altruistic behaviour and thus seek to model it themselves (Eisenberg, 2004).

Much past research has explored peer pressure and peer influence, often focusing on the negative impact that these two constructs have on an individual's development (Gardner & Steinberg, 2005; Mrug, Elliott, Davies, Tortolero, Cuccaro & Schuster, 2014; Prinstein, Brechwald, & Cohen, 2011). The results of this study suggest that peers can have a positive influence on an individual's moral identity. However, qualitative research providing causal explanations might offer important insights for schools seeking to introduce, develop or nurture programs that enhance moral identity development. To that end, it is recommended that future research includes qualitative data to provide causal explanations and possible insights into the relationships identified *(Recommendation 12)*.

Given that my results indicate that peer relationships influenced the students' moral identity, it is recommended that schools consider how they can enable students to

interact positively and form strong connections with each other *(Recommendation 14)*. Drawing on past research by Arsenault (2011) and Cress, Astin, Zimmerman-Oster and Burkhardt (2001), one possibility for schools is to offer peer support programs and leadership opportunities. These programs have been found to enhance peer connectedness, close social divides and leave students feeling valued. Another possibility for schools aiming to nurture greater peer connectedness is to provide opportunities for students to interact positively within the classroom and beyond (Gibbs, 2006). Classroom pedagogy that encourages interaction and team work, and extracurricular clubs and activities (Kaufman & Gabler, 2004) could provide opportunities for students to connect and interact with each other, reinforcing positive peer relationships (Searcy, 1996; Stainback, Stainback, & Wilkinson, 1992). The choice of intervention or program can vary, but should aim to cultivate fertile ground for peer relationships to flourish.

Affirming diversity. The results also suggest that schools which affirm diversity are likely to positively influence a student's moral identity (β=0.21, p<0.001). This finding adds support to Aquino and Reed's (2002) social identity theory, recognising that we learn moral discernment through our dialogue with significant others in our lives. The results of this study suggest that a school climate which affirms diversity has a positive impact on students' moral identity formation. An inclusive environment is likely to influence the behaviours that students choose (Ansbacher & Ansbacher, 1956; Carson, Butcher, & Mineka, 1996; Corey, 2001). It also corroborates the findings of past research by Tsai, Chentsova-Dutton and Wong (2002), who found that students' identity development was enhanced when schools promote positive peer relationships and are accepting of difference.

The positive and significant relationship between affirming diversity and students' moral identity formation provide an important insight for educators. Given that our communities and thus schools continue to become more multi-cultural, diverse and interconnected with the global world (Australian Bureau of Statistics, 2012; Green & Oldendorf, 2005), educators need to ensure that their schools enable students to learn to coexist peacefully and respectfully regardless of diversity. Given the implications of this finding coupled with the reality of globalisation, it is recommended that educators adopt a holistic and strategic approach to affirming diversity in their

schools *(Recommendation 15).* From a curriculum perspective, educators could ensure that diversity is taught in a factual, respectful and neutral manner, which, in turn, could build understanding, foster tolerance, and highlight commonalities rather than differences (as recommended by Whittaker, Salend, & Elhoweris, 2009). It is also recommended that initiatives for raising diversity awareness and acceptance include all role players from management to students (Van Vuuren, Van der Westhuizen, & Van der Walt, 2012) in order to build capacity, understanding and collective wisdom *(Recommendation 16).* Since each school climate is unique, it is recommended that, regardless of approach, schools maintain a level of autonomy that enables them to affirm, value and celebrate diversity within their context *(Recommendation 17)* (Bron & Thijs, 2011).

Guidelines regarding interpersonal behaviour. Rule clarity was statistically significantly and positively related to moral identity (β=0.12, p<0.05), suggesting that when schools communicate and enforce a system in which clear rules are established in a fair and equitable manner (Wang, Selman, Dishion, & Stormshak, 2010), it positively impacts on students' moral identity development. My finding corroborates past research by Fairbanks and Ariail (2006) and Wortham (2006), who found that schools with structures and processes that are fair and firm enable respectful interactions and positively impact on students' understanding of themselves. Further, my findings add weight to other studies which have shown that rule clarity exerts a significant impact on students' perceptions of safety (Welsh, 2000), which, according to Devin and Cohen (2007), powerfully promotes student learning and healthy development.

The statistically significant positive relationship between reporting and seeking help and student moral identity suggests that when students have effective avenues in schools to have their voice heard and needs met when seeking help, they are likely to have a stronger moral identity. This finding supports past research by Kawachi and Berkmann (2000), who indicated that tolerance, empathy and connection are enabled when processes for students to report and seek help involve investigation and/or discussion. Further, it adds support to Ricoeur's (1992) theory that individuals develop positions and stands on matters of importance that define their identity

through ongoing interactions with the standards and values supported by a community.

The influence of guidelines regarding interpersonal behaviour, specifically rule clarity and reporting and seeking help on moral identity, provide another important insight for educators. These findings suggest that educators wishing to positively influence the formation of a students' moral identity should ensure that structures and processes are clear and enforced in a fair, firm and equitable manner. This supports past research by Wang, Selman, Dishion and Stormshak (2010), Fairbanks and Ariail (2006) and Wortham (2006), all of whom argue these structures enable respectful interactions and relationship formation.

The findings of this study also suggest that educators could improve a student's moral identity by ensuring that their schools have effective avenues for student needs to be met and their voices to be heard. This supports past research by Kawachi and Berkmann (2000) and Ricoeur (1992) who found that a students' moral development is heavily influenced by their interaction with the processes, standards and values of their school. Additionally, Payne et al. (2003) argue that an organised school enables students to internalise the community's goals and norms, further highlighting that the community is critical for understanding the moral dimensions of the self (Power, 2004). An effective educational tool that educators could consider is restorative justice (Morrison, Blood, & Thorsborne, 2005). Restorative justice practices have the capacity to restore healthy relational functioning and enable the maintenance and repair of respectful relationships within a school community (Bickmore 2011; Drewery, 2016; Hopkins, 2011; Morrison 2007; Reistenberg 2011; Vaandering 2009). Overall, regardless of the chosen intervention tool, it is recommended that educators review, refine and implement school structures that reflect the desired values and are clear, consistent and fair not only for staff and parents, but for the students for whom they are designed to support *(Recommendation 18)*.

Overall, the results suggest that student moral identity can be improved through a school climate that facilitates rule clarity and the reporting and seeking of help.

6.2.3   Examination of relationships between student wellbeing, moral identity and resilience

The third research objective for this study was:

> To explore the interrelationships between students' perceptions of their wellbeing, moral identity and resilience. Specifically, this study sought to investigate the relationships between:
> a. Resilience and wellbeing;
> b. Resilience and moral identity; and
> c. Moral identity and wellbeing.

The next three hypotheses focus on the outcome variables and seek to explore potential relationships between them.

> *Hypothesis 4: Students' resilience is related to their wellbeing*
> *Hypothesis 5: Students' resilience is related to their moral identity*
> *Hypothesis 6: Students' moral identity is related to their wellbeing.*

The results from testing the above three hypotheses indicate that two of the three possible relationships are statistically significant. This section discusses the implications of each of the significant paths of the interrelationships between student wellbeing, moral identity and resilience: the relationship between resilience and wellbeing (Section 6.2.3.1); the relationship between resilience and moral identity (Section 6.2.3.2); and the relationship between moral identity and wellbeing (Section 6.2.3.3).

6.2.3.1   *The relationship between resilience and wellbeing*

The largest significant direct influence on a students' wellbeing was found to be resilience (β=0.43, p<0.001). The results support much past research which has found that resilience contributes to students' wellbeing (Agbakwuru & Stella, 2012; Frydenberg, Lewis & Frydenberg, 2009; Tugade & Frederickson, 2004; Yarcheski, Scholoveno, & Mahon, 1994; Zaleski, Levey-Thors, & Schiaffino, 1998). For

example, Benetti and Kambouropoulos (2006) and Mak, Ng and Wong (2011) found that resilient individuals were more likely to have improved self-esteem and self-confidence and perceive the world in a positive light. Furthermore, Klohnen (1996) reported that resilient individuals have higher levels of hope and optimism and in turn, more positive wellbeing. Whilst a relationship between resilience and wellbeing has been identified in past research, more recent research findings have suggested that resilience is a mediating factor for wellbeing and future orientation (Chua, Milfont, & Jose, 2015). This study's findings also support the notion that resilience has a strong, positive mediating influence on a students' wellbeing. This study strengthens past findings, providing results which indicate that resilience positively influences wellbeing.

6.2.3.2   *The relationship between resilience and moral identity*

The results of the study indicate that students' reports of resilience were related to their sense of moral identity (β=0.15, *p*<0.001). That is, when students reported an increased sense of resilience, they also reported an increased sense of moral identity. Although research in this area has been limited, findings suggest that when a young person's moral identity is nurtured, their resilience is also enhanced (Woodier, 2011). Past research has indicated that moral identity has a significant role in building resilience (Woodier, 2011); this study extends these findings and supports Thorkildsen and Walberg's (2004) theory, which identified that strong perceptions and actions of responsibility and care promote moral growth and development. This study provides an interesting insight into the interplay between these two variables, and suggests that morality (which, in past studies, has been found to influence resilience) can in fact be positively influenced by resilience.

Overall, this study's findings show students' resilience has a significant and positive influence on their wellbeing and moral identity, and thus provides an important insight for educators. A school climate that develops resilient young people is well placed to simultaneously improve student wellbeing and moral identity.

6.2.3.3   *The relationship between moral identity and wellbeing*

The results indicate that the relationship between students' sense of moral identity and their wellbeing was not significant. Though there has been limited research on the influence of moral identity on wellbeing, past research has indicated strong links between identity formation and health (Basak & Ghosh, 2008; Bishop et al., 2005; Crocetti et al., 2009; Dunkel et al., 2011; Luyckx, Soenens, Goossens, Beckx, & Wouters, 2008; Schwartz et al., 2009) and between moral identity and health (Amonini & Donovan, 2006; Glenn, Koleva, Iyer, Graham, & Ditto, 2010; Higgins-D'Alessandro & Power, 2005; Lewis, Phillippi, & Neighbors, 2007; Wowra, 2007). Past research has found that young people with strong moral values are motivated to practice certain virtues such as honesty and forgiveness, which in turn, have been linked to better mental health outcomes (Crawford, O'Dougherty-Wright, & Masten, 2006; Hill & Pargament, 2008). Recently, Hardy et al. (2014) found that students with a strong moral identity had more positive health effects. Their study involved participants enrolled at college in the United States. Interestingly, in their recommendations, they suggested future studies should explore if their findings were able to generalise to emerging adults, adolescents or students from other cultures. The results of this study show no significant relationship between moral identity and wellbeing. Although the present study does not provide causal effects, a possible interpretation could be that, students are unable to act in ways that uphold their moral identity and, therefore this did not impact on their sense of wellbeing. It is recommended, therefore, that future research includes qualitative data, to provide causal explanations and possible insights into the relationships identified *(Recommendation 12)*.

6.3 Limitations of the Study

As with all research, this study is not free of limitations and therefore caution must be taken before generalising the results. The limitations related to the instruments, hypothesis, approach and sample are discussed below.

Whilst the choice of instruments used for this study involved rigorous suitability and integrity review, some scales have had limited use to date. Given that the WHITS and WERMI have had limited use to date, it is recommended that further

examination of the applicability and reliability is needed through future studies *(Recommendation 19)*.

This study was based on a hypothesised model that explored a one direction, positive approach. To gain further insight into the relationship between school climate and student outcomes, the hypothesis could explore both directions of the relationship between student outcomes and school from a positive and negative perspective (*Recommendation 20*).

The research methods involved a quantitative approach and, as such, causal explanations were not available. According to Lowhorn (2007), although external validity can be achieved in quantitative research studies compared to qualitative research studies, the inclusion of qualitative data could provide deeper insight into the relationships between the factors. In addition, qualitative data could provide explanations for the relationships, and enable an exploration of causal effects. It is recommended, therefore, that future studies involve a mixed method approach in order to gain a deeper insight and explanation into the relationships between the factors *(Recommendation 21)*.

The data for the present study was collected from fifteen private schools in Adelaide, South Australia. The schools were drawn from the Independent and Catholic Education sectors and represented different socio-economic and geographical settings. However, despite a genuine effort to secure a larger representative sample, schools from the Education Department of South Australia were not included and there were limited regional schools involved, thus the sample did not accurately represent the general population. It is recommended, therefore, that future studies use a sample that is a better representation of the general population, including state, independent, regional, rural and urban schools *(Recommendation 22)*.

A concerted effort was made to include a cross-section of schools in the sample of various ages. Eleven of the schools represented had over 50-year traditions and had well-established school cultures. The other four schools were relatively young (less than 32 years old), and therefore were at different stages in their identity formation. However, the sample did not have an equal representation of this variable. Therefore,

to increase the generalisability of the results, future research could include schools of differing enrolment profiles, in terms of enrolment numbers and schools of various ages and traditions *(Recommendation 23)*.

The current study involved 618 participants. Whilst this sample size was adequate for the purpose of this research, future studies involving a larger sample might provide more dependable findings *(Recommendation 24)*. This in turn, as suggested by Creswell (2008), could lead to greater validity of findings and the inferences drawn.

This study chose to focus on adolescents in Year 11, due to their developmental stage and their perceived long term experience of their school climate. Given that the needs of adolescents are likely to vary throughout their time in secondary school, (Erikson, 1968; Harter & Monsour, 1992), it is recommended that future research include longitudinal studies *(Recommendation 25)*. This in turn, could provide further insights for educational leaders when addressing student needs across the year levels.

6.4   Summary of recommendations

Recommendation 1:   Given that school connectedness was found to positively influence student wellbeing, it is recommended that schools consider multiple avenues to foster a students' sense of belonging.

Recommendation 2:   Given that positive peer connectedness has been associated with student wellbeing, it is recommended that schools encourage and promote strong peer relationships.

Recommendation 3:   Given that past studies have found that a student's wellbeing is enhanced through positive teacher-student relationships, it is recommended that teachers adopt clear, positive practices that nurture and enhance their relationships with their students.

Recommendation 4:   It is recommended that future studies explore both student and teacher perceptions in regards to social connectedness, to enhance understanding and increase the effectiveness of explicit intervention strategies.

Recommendation 5:   Given the importance of social connectedness and also the potential double-edged nature of relationships in their impact on student outcomes it is recommended that future studies explore both the positive and negative aspects of relationships and how they are related to students' perception of belonging.

Recommendation 6:   Given that the findings of past studies focused generally on the impact of a hostile school environment rather than an inclusive/affirming' one, it is recommended that future research explores both the positive and negative school climate influences on students' wellbeing.

Recommendation 7:   Given that schools, like society, may not always affirm diversity, it is recommended that future research examines the extent to which a school affirms diversity and in turn, the impact this has on students.

Recommendation 8:   Given that previous research has directly linked a school's discipline climate to non-academic outcomes, it is recommended that future research include young adolescents (Year 8 to 10) as they generally have greater interaction with school discipline structures.

Recommendation 9:   Given that no single intervention will be successful in engaging all students, it is recommended that schools use a multi-faceted approach to enhance connectedness, in an attempt to enhance student resilience.

Recommendation 10: To enhance connectedness and thus student resilience, it is recommended that schools aim to have a clear recruitment and development plan that seeks to establish and nurture staff who are genuinely committed to best practice when working with young people.

Recommendation 11: To directly enhance student resilience, it is recommended that teachers adopt relational practices to ensure that their students feel 'known' and 'cared for'.

Recommendation 12: It is recommended that future research includes qualitative data, to provide causal explanations and possible insights into the relationships identified.

Recommendation 13: Given that when schools are well organised and have clearly articulated rules and expectations, students are able to develop resilience, it is recommended that a school's grievance procedures and behaviour management system be accessible, robust, fair, transparent and protective of the victim.

Recommendation 14: Given that peer relationships influence students' moral identity, it is recommended that schools consider how to enable students to interact positively and form strong connections with each other.

Recommendation 15: Given that our communities and thus schools continue to become more multi-cultural, diverse and interconnected with the global world, it is recommended that educators adopt a holistic and strategic approach to affirming diversity in their schools.

Recommendation 16: It is recommended that initiatives for raising diversity awareness and acceptance include all role players from management to students, in order to build capacity, understanding and collective wisdom.

Recommendation 17: Given that a student's moral identity is positively influenced by diversity affirmation, it is recommended that, regardless of approach, schools maintain a level of autonomy that enables them to affirm, value and celebrate diversity within their context.

Recommendation 18: Given that a student's moral identity is positively influenced by rule clarity, it is recommended educators review, refine and implement school structures that reflect the desired values that are clear, consistent and fair not only for staff and parents, but for the students for whom they are designed to support.

Recommendation 19: Given that the WHITS and WERMI instruments have had limited use to date, it is recommended that further examination of their applicability and reliability is assessed through future studies.

Recommendation 20: To gain further insight into the relationship between school climate and student outcomes, future studies hypotheses could

explore both directions in the relationship from a positive and negative perspective.

Recommendation 21: To provide explanations for the relationships, and enable an exploration of causal effect it is recommended that future studies involve a mixed method approach in order to gain a deeper insight and explanation into the relationships between the factors.

Recommendation 22: To ensure the sample accurately represents the general population, it is recommended that future studies use a sample that is a better representation of the general population, including state, independent, regional, rural and urban schools.

Recommendation 23: To increase the generalisability of the results, future research could include schools of differing enrolment profiles in terms of enrolment numbers, public and private schools and schools of various ages and traditions.

Recommendation 24: To provide more dependable findings, future studies could involve a larger sample.

Recommendation 25: Given adolescents' needs vary significantly throughout their time in secondary school, future research could include longitudinal studies.

6.5   Significance of the study

Despite its limitations, the results of this study are valuable for a number of reasons.

The present study makes a significant contribution to the sparse literature related to school climate and its influence on students' wellbeing, resilience and moral identity. More specifically, its findings are based on student perceptions, offering a unique contribution to past research which has generally drawn its data from teachers and educational leaders.

This study, to the best of my knowledge, is the first study in South Australian independent schools that explores the impact of school climate on these student

outcomes. Although, this study only explored three subjective outcomes, it is likely that the findings could help educators to understand the powerful impact of school climate on other outcomes.

The study has made available a survey, the WERMI, which draws on three established scales: the WHO-5 Wellbeing Index 1998 (World Health Organisation, 1998); Aquino and Reed's (2002) Moral Identity Scale; and Wagnild and Young's (1993) 25-item Resilience Scale. The comprehensive validation of this instrument provides strong support for its reliability and validity, making available a psychometrically sound instrument that can be used in future research.

This study extends past research, offering new insights into school climate dimensions and student outcomes. To date there has been limited research into specific school climate dimensions and their impact on the subjective student outcomes. Therefore, the findings have extended this limited research and filled a research gap by highlighting specific dimensions of the school climate which, when perceived and experienced positively by students, could enhance student wellbeing, moral identity and resilience. The implications of these findings offer educators insight into what areas of the school climate they could target to have the most significant effect on student outcomes.

The current study contributes to wider research related to school climate and its impact on student outcomes. As Wigfield, Eccles, Schiefele, Roeser and Davis-Kean (2006) argue, experiences at school influence every aspect of adolescent development, from academic to social-emotional development and everything in between. The findings reported in this thesis add weight to Eccles and Roeser's (2011) theory that the school climate promotes multi-developmental goals such as adjustment (Wang, Wu & Wang, 2009), attitudes (Battistich, Solomon, Kim, Watson, & Schaps, 1995), increased student engagement (Brady, 2006), and improved academic achievement (Brookover et al, 1978; MacNeil, Prater, & Busch, 2009). The findings support past research that argues that school climate influences students' development (Bond et al., 2007; Kline, Fish, & Maniago, 2007; Masten & Motti-Stefanidi, 2009; Rich & Schachter, 2012; Sfard & Prusak, 2009), specifically in terms of their wellbeing, resilience and moral identity.

There has been limited research into how school climate influences moral identity and to a lesser degree, resilience. Therefore, the findings of this study could be of significance to educators. These findings could be used to maximise student identity formation, resilience and in turn, wellbeing. Furthermore, this study re-emphasises past research which suggests that educators should engage a multidimensional intervention approach when seeking to develop student resilience and wellbeing (Fredrickson, 2001; Stiglbauer, Gnambs, Gamsjager, & Batinic, 2013).

To date there has been limited research conducted into how school climate contributes to or influences moral identity; these findings provide educators with a number of important foci for implementation programs and strategies which could enhance moral identity development. Specifically, educators could consider focusing on improving peer relationships, their guidelines regarding interpersonal behaviour, and how they affirm diversity in their schools.

The findings offer further insight into adolescent development and the aspects of the school climate that have the potential to positively impact areas of students' mental health. In the face of the rising statistics of mental illness, the results of this study provide a timely insight into school climate and its influence on a student's development. Furthermore, as adolescence is a time of exploration which often reaches beyond the bounds of parents and families (Erikson, 1968; Steinberg, 2002), this study's findings are particularly relevant. The results of this study present a valuable insight into the significant role schools can have in the holistic development of students.

Overall, the results offer important insights to principals and teachers. The findings have the potential to inform and guide educators in their leadership and management, offering practical information about specific school climate dimensions that can be used by schools to empower students to be resilient, moral, healthy and high functioning.

6.6 Concluding Remarks

In the context of the rising mental health issues in Australia, coupled with the evolving roles and expectations of schools, this study's findings provide important insights for educational leaders in regard to how they structure, develop and nurture their school climate in order to positively influence students' subjective outcomes. Drawing on the findings, educators could target their intervention strategies, for example, by resourcing, establishing and maintaining structures, writing policies and introducing programs to ensure the greatest impact on student development.

The study chose to explore student perceptions of school climate, aiming to gain insights from the individuals who are at the heart of education. The findings thus provide a unique insight into how students perceive their school climate and their own mental health. This study has thus extended past research that has based its findings on teacher or leadership perceptions, and offers a timely profile of South Australian upper secondary school climates today.

The results from my study suggest that in order to positively influence students wellbeing, moral identity and resilience, a multi-dimensional approach is required, and one program or intervention alone will not suffice. Rather, as recommended by Ungar, Russell and Connelly (2014) "the best school-based interventions appear to be collaborative, multi-systemic and culturally and contextually relevant, responding to what children themselves say they need" (p. 74).

BIBLIOGRAPHY

Aelterman, A., Engels, N., Van Petegem, K., & Verhaeghe, J.P. (2007). The wellbeing of teachers in Flanders: The importance of a supportive school culture. *Educational Studies, 33*(3), 285-297.

Agbakwuru, C., & Stella, C. (2012). Effect of assertiveness training on resilience among early-adolescents. *European Scientific Journal, 8*(10), 69-84.

Ahren, N.R. (2006). Adolescent resilience: An evolutionary concept analysis. *Journal of Pediatric Nursing, 21*(3), 175-185.

Ahren, N.R., Ark, P., & Byers, J. (2008). Resilience and coping strategies in adolescents. *Paediatric Nursing, 20*(10), 32-36.

Ahren, N.R., Kiehl, E.M., Lou Sole, M.L., & Byers, J. (2006). A review of instruments measuring resilience. *Issues in Comprehensive Paediatric Nursing, 29*(2), 103-125.

Aldridge, J.M., & Ala'i, K. (2013). Assessing students' views of school climate: Developing and validating the What's Happening In This School? (WHITS) questionnaire. *Improving Schools, 16*(1), 47-66.

Aldridge, J.M., Ala'i, K., & Fraser, B.J. (2016). Relationships between school climate and adolescent students' self-reports of ethnic and moral identity. *Learning Environments Research*, *19*(1)*,* 1-15.

Allgaier, A.K., Liwowsky, I., Dramer, D., Mergl, R., Fejkova, S., & Hegerl, U. (2011). Screening for depression in nursing homes: Validity of the WHO (Five) Well-Being Index. *European Psychiatry, 26*(1), 825.

Alreck, P.L. & Settle, R.B. (1995). *The survey research handbook: Guidelines and strategies for conducting a survey* (2nd ed). Chicago, IL: Irwin Professional Publishing.

Alva, S.A. (1991). Academic invulnerability among Mexican-American students: The importance of protective resources and appraisals. *Hispanic Journal of Behavioural Sciences, 13*(1), 18-34.

Amonini, C., & Donovan, R.J. (2006). The relationship between youth's moral and legal perceptions of alcohol, tobacco and marijuana and use of these substances. *Health Education Research, 21*(2), 276-286.

Anderson, C.S. (1982). The search for school climate: A review of the literature. *Review of Educational Research, 52*(3), 368-420.

Andrews, F.M., & Withey, S.B. (1976). *Social indicators of wellbeing: American's perceptions of life quality*. New York, NY: Plenum Press.

Ansbacher, H.L., & Ansbacher, R.R. (Eds.). (1956). *The individual psychology of Alfred Alder: A systematic presentation on selections from his writings*. New York, NY: Basic Books.

Antrop-González, R. (2006). Toward the *school as sanctuary* concept in multicultural urban education: Implications for small high school reform. *Curriculum Inquiry*, *36*(3), 273-301.

Aquino, K., Freeman, D., Reed, A., Lim, V, & Felps, W. (2009). Testing a social-cognitive model of moral behaviour: The interactive influence of situations and moral identity centrality. *Journal of Personality and Social Psychology, 97*(1), 123-141.

Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology, 83*(6), 1423-1440.

Arbuckle, J.L. (2005). *AMOS 6.0 user's guide*. Chicago, US: SPSS.

Arbuckle, J.L. (2013). *IBM^R SPSS^R Amos^{TM} 22 user's guide*. Crawfordville: Amos Development Corporation.

Arsenault, L.S. (2011). Student leadership teams at Riverside Education Centre: An example of success, *Physical & Health Education Journal*, *77*(1), 41-43.

Asif, F. (2011). Estimating the impact of Denison's (1996). What is the difference between organisational culture and organisational climate?: A native's point of view on a decade of paradigm wars. *Journal of Business Research, 64*(5), 454-459.

Australian Bureau of Statistics. (2008). *National Survey of Mental Health and Wellbeing: Summary of results.* Canberra, AU: Australian Bureau of Statistics.

Australian Bureau of Statistics. (2009). *National Survey of Mental Health and Wellbeing: Summary of results,* 4326.0, 2007. Canberra, AU: Australian Bureau of Statistics.

Australian Bureau of Statistics. (2012). *The 2011 Census place of enumeration profile.* Canberra, AU: Australian Bureau of Statistics.

Australian Curriculum, Assessment and Reporting Authority (ACARA). (2013). *Australian Curriculum.* Educational Services Australia. Retrieved from: www.acara.edu.au/curriculum.html (accessed 12 February 2016).

Australian Government. (2014). *Melbourne Declaration of Educational Goals for Young Australians.* Canberra, AU: Department of Education and Training.

Australian Institute of Health and Welfare. (2012). *Social and emotional wellbeing: Development of a children's headline indicator.* Cat. no. PHE 158. Canberra, AU: Australian Institute of Health and Welfare.

Awartani, M., Whitman, C.V., & Gordon, J. (2008). Developing instruments to capture young people's perceptions of how school as a learning environment affects their wellbeing. *European Journal of Education, 43*(1), 51-70.

Bagozzi, R.P., Yi, Y., & Phillips, L.W. (1991). Assessing construct validity in organisational research. *Administrative Science Quarterly, 36*(3), 421-458.

Bagozzi, R.P., & Youjae, Y. (1989). On the use of structural equation models in experimental designs. *Journal of Marketing Research, 26*(3), 271-284.

Baker, J.A., Dilly, L.J., Aupperlee, J.L., & Patil, S.A. (2003). The developmental context of school satisfaction: Schools as psychologically healthy environments. *School Psychology Quarterly, 18*, 206-221.

Baldry, A.C. (2004). The impact of direct and indirect bullying on the mental and physical health of Italian youngsters. *Aggressive Behaviour, 30,* 343-355.

Bandyopadhyay, S., Cornell, D.G., & Konold, T.R. (2009). Validity of three school climate scales to assess bullying, aggressive attitudes, and help seeking. *School Psychology Review*, *38*(3), 338-355.

Banks, C. (2005). *Improving multicultural education: Lessons from the intergroup education movement.* New York, NY: Teachers College Press.

Barber, B., Schluterman, J., & Barber, B. (2008). Connectedness in the lives of children and adolescents: A call for greater conceptual clarity. *Journal of Adolescent Health, 43*(3), 209-216.

Barclay, D., Higgins, C., & Thompson, R. (1995). The Partial Least Squares (PLS) approach to causal modelling: Personal computer adoption and uses as an illustration. *Technology Studies, 2*, 285-309.

Bargh, J.A., Bond, R.N., Lombardi, W.J., & Tota, M.E. (1986). The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology, 50*(5), 869-878.

Barile, J.P., Donohue, D.K., Anthony, E.R., Baker, A.M., Weaver, S.R., & Henrich, C.C. (2012). Teacher-student relationship climate and school outcomes: Implications for educational policy initiatives. *Journal of Youth and Adolescence, 41*(3), 256-267.

Barriga, A.Q., Morrison, E.M., Liau, A.K., & Gibbs, J.C. (2001). Moral cognition: Explaining the gender difference in antisocial behaviour. *Merrill-Palmer Quarterly, 47*(4)*,* 532-562.

Basak, R., & Ghosh, A. (2008). Ego-identity status and its relationship with self-esteem in a group of late adolescents. *Journal of the Indian Academy of Applied Psychology, 34,* 337-344.

Battistich, V., Schaps, E., & Wilson, N. (2004). Effects of an elementary school intervention on students' "connectedness" to school and social adjustment during middle school. *Journal of Primary Prevention, 24*(3), 243-262.

Battistich, V., Solomon, D., Kim, D-I., Watson, M, & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal, 32*(3), 627-658.

Bauer, R.A. (1966). Social indicators and sample surveys. *Public Opinion Quarterly, 30*(3), 339-352.

Baumrind, D. (1971). Harmonious parents and their preschool children. *Developmental Psychology, 4*(1), 99-102.

Bear, G.G. (2010). *School discipline and self-discipline: A practical guide to promoting prosocial student behaviour.* New York, NY: Gilford Press.

Bear, G.G., Gaskins, C., Blank, J., & Chen, F.F. (2011). Delaware School Climate Survey-Student: Its factor structure, concurrent validity, and reliability. *Journal of School Psychology, 49*(2), 157-174.

Bear, G.G., & Yang, C. (2011). *Delaware School Climate Survey Technical Manual.* Centre for Disabilities Studies, Delaware Department of Education. Delaware University.

Bech, P. (1998). *Quality of life in the psychiatric patient.* London, UK: Mosby-Wolfe.

Bech, P. (2012). *Clinical psychometrics.* Hoboken, NJ: Wiley.

Bech, P., Olsen, L.R., Kjoller, M., & Rasmussen, N.K. (2003). Measuring wellbeing rather than the absence of distress symptoms: A comparison of the SF-36

mental health subscale and the WHO-5 well-being scale. *International Journal Methods in Psychiatric Research, 12*(2), 85-91.

Benetti, C., & Kambouropoulos, N. (2006). Affect-regulated indirect effects of trait anxiety and trait resilience on self-esteem. *Personality and Individual Differences, 41*(2)*,* 341-352.

Berg, O. (1975). Health and the quality of life. *Acta Sociologica,18*(1), 3-22.

Bernard, B. (1993). Fostering resiliency in kids. *Educational Leadership, 51(3)*, 44-48.

Bernard, B. (2004). *Resiliency: What have we learned?* San Fancisco, CA: WetEd.

Bernat, F.P. (2009). Youth resilience: Can schools enhance youth factors for hope, optimism, and success? *Women and Criminal Justice, 19*(3), 251-266.

Bickmore, K. (2011). "Location, Location, Location: Restorative (Educative) Practices in Classrooms." Paper presented at the ESRC Restorative Approaches to Conflict in Schools, Seminar #4, University of Edinburgh.

Billig, S. (2000). Research on K-12 school-based service-learning: The evidence builds. *Phi Delta Kappan, 81*(9), 655-664.

Billig, S., Root, S., & Jesse, D. (2005). The relationship between quality indicators of service-learning and student outcomes: Testing professional wisdom. In S. Root, J. Callahan, and S.H. Billig (Eds.), *Advances in service-learning research: Vol. 5. Improving service-learning practice: Research on models to enhance impacts,* pp. 97-115. Greenwhich, CT: Information Age Publishing.

Bishop, D.I., Weisgram, E.S., Holleque, K.M., Lund, K.E., & Wheeler-Anderson, J.R. (2005). Identity development and alcohol consumption: Current and retrospective reports by college students. *Journal of Adolescence, 28*(4)*,* 523-533.

Bland, J.M., & Altman, D.G. (1997). Cronbach's alpha. *CMJ (Clinical research ed.), 314*(7080), 572.

Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin, 88*(1), 1-45.

Blasi, A. (1984). Moral identity: Its role in moral functioning. In W. Kurtines, & J. Gewitz, *Morality, moral behaviour and moral development* (pp. 128-139). New York, NY: Wiley.

Blasi, A. (2004). Moral functioning: Moral understanding and personality. In D.K. Lapsley, & D. Narvaez, *Moral development, self and identity* (pp. 335-347). Mahwah, NJ: Erlbaum.

Blasi, A. (2005). Moral character: A psychological approach. In D.K. Lapsley & F.C. Power (Eds.). *Character psychology and character education* (pp. 67-100). Notre Dame, IN: University of Notre Dame Press.

Block, J., & Kremen, A.M. (1996). IQ and ego-resiliency: Conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology, 70*(2), 349-361.

Blum, D. (1998). Finding the strength to overcome anything. *Psychology Today*, *31*(3), 32-72.

Blum, R.W., Libbey, H.P. (2004). School connectedness: Strengthening health and education outcomes for teenagers. *Journal of School Health, 74*(7)*,* 231-232.

Blum, R.W., McNeely, C.A., & Rinehart, P.M. (2002). *Improving the odds: The untapped power of schools to improve the health of teens.* Minneapolis: Centre for Adolescent Health and Development, University of Minnesota.

Bocchi, B., Dozza, L., Chianese, G., & Cavrini, G. (2014). School climate: Comparison between parents' and teachers' perceptions. *Procedia Social and Behavioural Sciences, 116*, 4643-4649.

Bollen, K.A. (1989). *Structural equations with latent variables.* New York, NY: Wiley.

Bonanno, G.A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*(1), 20-28.

Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., & Bowes, G. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health and academic outcomes. *The Journal of Adolescent Health, 40*(4), 9-18.

Bond, L., Carlin, J.B., Thomas, L., Rubin, K, & Patton, G. (2001). Does bullying cause emotional problems?: A prospective study of young teenagers. *British Medical Journal, 323(7311),* 480-484.

Bonny, A.E., Britto, M.T., Kolstermann, B.K., Hornung, R.W., & Slap, G.B. (2000). School connectedness: Identifying adolescents at risk. *Paediatrics, 106,* 1017-1021.

Bonsignore, M., Barkow, K., Jessen, F., & Heun, R. (2001). Validity of the five-item WHO Well-Being Index (WHO-5) in an elderly population. *European archives of psychiatry and clinical neuroscience, 251*(2), 1127-1131.

Bradburn, N.M. (1969). *The structure of psychological wellbeing.* Chicago, Ill: Aldine Publishing Co.

Bradshaw, C.P., Waasdorp, T.E., Debnam, K.J., & Johnson, S.L. (2014). Measuring school climate in high schools: A focus on safety, engagement, and the environment. *Journal of School Health, 84*(9), 593-604.

Brady, P. (2006) Inclusionary and exclusionary secondary schools: The effect of school culture on student outcomes. *Interchange, 36,* 295-311.

Brand, S., Felner, R.D., Seitsinger, A., Burns, A., & Bolton, N. (2008). A large scale study of the assessment of the social environment of middle and secondary schools: The validity and utility of teachers' ratings of school climate, cultural pluralism, and safety problems for understanding school effects and school improvement. *Journal of School Psychology, 46*(5), 507-535.

Brand, S., Felner, R.D., Shim, M., Seitsinger, A., & Dumas, T. (2003). Middle school improvement and reform: Development and validation of a school-level assessment of climate, cultural pluralism, and school safety. *Journal of Educational Psychology, 95*, 570-588.

Brennan, M.A. (2008). Conceptualizing resiliency: An interactional perspective for community and youth development. *Child Care in Practice, 14*(1), 55-64.

Bron, J. & Thijs, A. (2011). Leaving it to the schools: Citizenship, diversity and human rights education in the Netherlands. *Educational Research, 53*(2), 123-156.

Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist, 34*(10), 844-850.

Bronfenbrenner, U., & Morris, P. (1998). The ecology of developmental processes. In W. Damon (Series Ed.), & R. Lerner (Vol. Ed.), *Theoretical models of human development: Vol. 1. Handbook of child psychology* (5th ed.) (pp. 993-1028). New York, NY: Wiley.

Brookover, W.B. (1985). Can we make schools effective for minority students? The *Journal of Negro Education, 54*(3), 257-268.

Brookover, W.B., Schweitser, J.H., Schneider, J.M., Beady, C.H., Flood, P.K., & Wisenbaker, J.M. (1978). Elementary school social climate and school achievement. *American Educational Research Journal, 15*, 301-318.

Brophy, J. (2009). Connecting with the big picture. *Educational Psychologist, 44*(2), 147-157.

Brown, T. (2006). *Confirmatory factor analysis for applied research.* New York, NY: Guildford Press.

Browne, G., Gafni, A., Roberts, J., Byrne, C., & Majumdar, B. (2004). Effective/efficient mental health programs for school-age children: A synthesis of reviews. *Social Science & Medicine, 58*(7), 1367-1384.

Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.) Testing Structural equation models (pp. 136-162). Newbury Park, CA: Sage.

Buhrmester, D. (1996). Need fulfilment, interpersonal competence and the developmental contexts of early adolescent friendship. In W. Bukowski, A. Newcomb, & W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 159-185). New York, NY: Cambridge University Press.

Burns, R.A., & Anstey, K.J. (2010). The Connor-Davidson Resilience Scale (CD-RISC): Testing the invariance of a uni-dimensional resilience measure that is independent of positive and negative affect. *Personality and Individual Differences, 48*(5), 527-531.

Byrne, B.M. (2010). *Structural equation modelling with AMOS: Basic concepts, applications, and programming.* New York, NY: Routledge.

Cairns, L.G. (1987). Behaviour problems. In M.J. Dunkin (Ed.), *International encyclopaedia of teaching and teacher education* (pp. 446-452). New York, NY: Pergamon.

Camfield, L. (2012). Resilience and wellbeing among urban Ethiopian children: What role do social resources and competencies play? *Social Indicators Research, 107*(3)*,* 393-410.

Camfield, L., Crivello, G., & Woodhead, M. (2009). Wellbeing research in developing countries: Reviewing the role of qualitative methods. *Social Indicators Research, 90*(1), 5-31.

Campbell-Sills, L., & Stein, M.B. (2007). Psychometric analysis and refinement of the Connor-Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress, 20*(6), 1019-1028.

Carney, J.V. (2008). Perceptions of bullying and associated trauma during adolescence. *Professional School Counselling, 11*(3), 179-188.

Carson, R.C., Butcher, J.N., & Mineka, S. (1996). *Abnormal psychology and modern life* (10th ed.). New York, NY: Harper Collins College Publishers.

Casella, L., & Motta, R.W. (1990). Comparison of characteristics of Vietnam veterans with and without posttraumatic stress disorder. *Psychological Reports, 67*(2)*,* 595-605.

Catalano, R.F., & Hawkins, J.D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *Annuals of the American Academy of Political and Social Sciences, 591*, 98-124.

Chapman, R.L., Buckley, L., Sheehan, M.C., Shochet, I.M., & Romaniuk, M. (2011). The impact of school connectedness on violent behaviour, transport risk-taking behaviour, and associated injuries in adolescence. *Journal of School Psychology, 49*(4), 399-410.

Checkoway, B. (2011). What is youth participation? *Children and Youth Services Review*, *33*(2), 340-345.

Cherlin, A., & Reeder, L.G. (1975). The dimensions of psychological wellbeing: A critical review. *Social Methods Research, 4*(2)*,* 189-214.

Chhuon, V., & Wallace, T.L. (2014). Creating connectedness through being known: Fulfilling the need to belong in U.S. high schools. *Youth and Society, 46*(3), 379-401.

Chua, L.W., Milfont. T.L., & Jose. P.E., (2015). Coping skills help explain how future-oriented adolescents accrue greater wellbeing over time. *Journal of Youth and Adolescence, 44(*11)*,* 2028-2041.

Cobb, C., & Rixford, C. (1998). Lessons learned from the history of social indicators. San Francisco: Redefining Progress. Retrieved from http://rprogress.org/publications/1998/SocIndHist.pdf

Cobb, N.J. (2001). *Adolescence: Continuity, change, and diversity.* (4th Ed) Mountain View, Calif: Mayfield.

Cohen, J.M. (1992). Quantitative methods in psychology: A power primer. *Psychological Bulletin, 112*, 155-159.

Cohen, J.M. (2001). Social and emotional education: Core principles and practices. In J. Cohen, *Caring classrooms/intelligent schools: The social emotional education of young children* (pp. 3-29). New York, NY: Teachers College Press.

Cohen, J.M. (2006). Social, emotional, ethical and academic education: Creating a climate for learning, participation in democracy and wellbeing. *Harvard Educational Review, 76*(2), 201-237.

Cohen, J.M., McCabe, L., Michelli, N.M., & Pickerel, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record, 111*(1), 180-213.

Cohen, J.M., Pickerel, T., & McCloskey, M. (2009). Assessing school climate. *The Education Digest, 74*(8), 45-48.

Cohen, J.M., Shapiro, L, & Fisher, M. (2006). Finding the heart of your school. *Principal Leadership, Middle Level Edition, 7*(4), 26-31.

Colby, A., & Damon, W. (1992). *Some do care: Contemporary lives of moral commitment.* New York, NY: Free Press.

Coleman, J., & Hagell, A., (2007). (Eds.). *Adolescence, risk and resilience: Against the odds*. Indiana: Wiley & Sons.

Comer, J.P. (1989). Child development and education. *The Journal of Negro Education, 58*(2), 125-139.

Comer, J.P. (2015). Developing social capital in schools. *Society, 52*(3), 225-231.

Commonwealth of Australia (2010). Mind Matters Website. Retrieved from http://www.mindmatters.edu.au/default.asp

Compton, W.C., Smith, M.K., Cornish, K.A., & Qualis, D.L. (1996). Factor structure of mental health measures. *Journal of Perspective Social Psychology, 71*(2), 406-413.

Condly, S.J. (2006). Resilience in children: A review of literature with implications for educators. *Urban Education, 41*(3), 211-236.

Connor, K.M., & Davidson, J.R. (2003). Development of a new resilience scale: The Connor Davidson Resilience Scale (CD-RISC). *Depression and Anxiety, 18*(2), 76-82.

Corey, G. (2001). *Theory and practice of counselling and psychotherapy* (6th ed.). Monterey, CA: Brooks & Cole.

Costello, J., Toles, M., Spielberger, J., & Wynn, J. (2000). History, ideology and structure shape the organisations that shape youth. In N. Jaffe (Ed.), *Youth development: Issues, challenges, and directions* (pp. 185-231). Philadelphia: Public/Private Ventures.

Cote, J.E., & Levine, C.G. (2002). *Identity formation, agency, and culture: A social psychological synthesis*. Mahway, NJ: Lawrence Erlbaum.

Coutu, D.L. (2002). How resilience works. *Harvard Business Review, 80*(5), 46-55.

Crawford, E., O'Dougherty-Wright, M., & Masten, A.S. (2006). Resilience and spirituality in youth. In E. Roehlkepartain, P.E. King, L. Wagener & P.L. Benson (Eds.), *The handbook of spiritual development in childhood and adolescence* (pp. 355-370). London, UK: Sage Publications.

Cress, C.M., Astin, H.S., Zimmerman-Oster, K., & Burkhardt, J.C. (2001). Developmental outcomes of college students' involvement in leadership activities. *Journal of College Student Development, 42*(1), 15-27.

Creswell, J.W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* 5th edition. Frenchs Forest, Sydney: Pearson Australia.

Crocetti, E., Klimstra, T., Keijsers, L., Hale, W.W., & Meeuse, W. (2009). Anxiety trajectories and identity development in adolescence: A five-year longitudinal study. *Journal of Youth and Adolescence, 38*(6)*,* 839-849.

Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.

Cross, D., Monks, H., Hall, M., Shaw, T., Pintabona, Y., Ereeg, E., … Lester, L. (2011). Three-year results of the Friendly Schools whole of school intervention on children's bullying behaviour. *British Educational Research Journal, 37*(1), 105-129.

Cummins, R.A., Eckersley, R., Pallant, J., Van Vugt, J., & Misajon, R. (2003). Developing a national index of subjective wellbeing: The Australian Unity Wellbeing Index. *Social Indicators Research, 64*(2), 159-190.

Damanik, E., & Aldridge, J.M. (in press)**.** Transformational leadership and its impact on school climate and teachers' self-efficacy in Indonesian high schools. *Journal of School Leadership.*

Damon, W. (1977). *The social world of the child.* San Francisco, US: Jossey-Bass Publishers.

Damon, W. (1999). The moral development of children. *Scientific American*, *281*(2), 72-78.

Damon, W., & Hart, D. (1984). Self-understanding and moral development from childhood to adolescence. In W. Kurtines & J. Gewirtz (Eds.), *Morality, moral behaviour and moral development* (pp. 109-127). New York, NY: Wiley.

Damon, W., & Hart, D. (1992). Self-understanding and its role in social and moral development. In M. Bornstein & M.E. Lamb (Eds.), *Developmental psychology: An advanced textbook* (3rd ed.) pp. 421-464. Hillsdale, NJ: Erlbaum.

Danielsen, A., Samdal, O., Hetland, J., & Wold, B. (2009). School-related social support and students' perceived life satisfaction. *Journal of Educational Research, 102*(4), 303-320.

Davern, M., Cummins, R.A., & Stokes, M. (2007). Subjective wellbeing as an affective-cognitive construct. *Journal of Happiness Studies, 8*(4)*,* 429-449.

Deal, T.E., & Kennedy, A. (1983). Culture and school performance. *Educational Leadership, 40*(5), 14-15.

Deal, T.E., & Peterson, K.D. (1999). *Shaping school culture: The heart of leadership.* San Francisco, Calif: Jossey-Bass.

De Bruyn, E., & Van Den Boom, D. (2005). Interpersonal behaviour, peer popularity and self-esteem in early adolescence. *Social development, 14*(4), 555-573.

DEEWR (Department of Education Employment and Workplace Relations). (2010). *National Safe Schools Framework.* Canberra: Government, Australia.

De Jung, J.E., & Duckworth. K. (1986). Measuring student absences in the high schools. Paper presented at *The Annual Meeting of the American Educational Research Association,* San Francisco, CA: American Educational Research Association.

Department for Education. (2014). *The national curriculum in England.* Retrieved on September 19 , 2014, from https://www.gov.uk/government/uploads/system/uploads/attachment_data/fil e/381754/SECONDARY_national_curriculum.pdf

Dessel, A. (2010). Prejudice in schools: Promotion of an inclusive culture and climate. *Education and Urban Society, 42*(4), 407-429.

Devin, J., & Cohen, J. (2007). *Making your school safe: Strategies to protect children and promote learning.* New York: Teachers College Press.

Dewey, J. (1916). *Democracy and Education: An introduction to the philosophy of education*. New York, NY: Free Press.

De Wit, M., Pouwer, F., Gemke, R.J., Delemarre-van deWaal, H.A., & Snoek, F.J. (2007). Validation of the WHO-5 wellbeing index in adolescents with type 1 diabetes. *Diabetes Care, 30*(8), 2003-2006.

Diamantopoulos, A. & Siguaw, J.A. (2000). *Introducing Lisrel: A guide for the uninitiated*. London, UK: Sage.

Diener, E. (1984). Subjective wellbeing. *Psychological Bulletin, 95,* 542-575.

Diener, E., Emmons, R.A., Larson, R.J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*(1), 71-75.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.W., Oishi, S., & Biswas-Diener, R. (2010). New wellbeing measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research, 97*(2), 143-156.

Dierendonck, D. (2004). The construct validity of Ryff's Scales of Psychological Wellbeing and its extension with spiritual wellbeing. *Personality and Individual Differences, 36*(3), 629-643.

Doyal, L., & Gough, I. (1991). *A theory of human need.* New York: Guilford Press.

Drewery, W. (2016). Restorative practice in New Zealand schools: Social development through relational justice. *Educational Philosophy and Theory, 48*(2), 191-203.

Dunkel, C.S., Mathes, E., & Harbke, C. (2011). Life history strategy, identity consolidation, and psychological wellbeing. *Personality and Individual Differences*, *51*(1)*,* 34-38.

Easterlin, R.A., McVey, L.A., Switek, M., Sawangfa, O., & Zweig, J.S. (2010). *The happiness-income paradox revisited.* Proceedings of the National Academy of Sciences, *107*(52), 22463-22468.

Eccles, J.S., & Roeser, R.W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence, 21*(1), 225-241.

Eisenberg, N. (2004). Prosocial and moral development in the family. In T. Thorkildsen & H. Walberg (Eds.), *Nurturing morality* (pp. 119-135). New York, NY: Kluwer Academic/Plenum Publishers.

Eisenberg, N., Gutherie, I.K., Fabes, R.A., Reiser, M., Murphy, B.C., Holgren, R., … & Losoya, S. (1997). The relations of regulation and emotionality to resiliency and competent social functioning in elementary school children. *Child Development, 68*(2)*,* 295-311.

Eliot, M., Cornell, D., Gregory, A., & Fan, X. (2010). Supportive school climate and student willingness to seek help for bullying and threats of violence. *Journal of School Psychology, 48*(6), 533-552.

Engels, N., Aelterman, A., Van Petegem, K., & Schepens, A. (2004). Factors which influence the wellbeing of pupils in Flemish secondary schools. *Educational Studies, 30*(2), 127-143.

Enthoven, M.E.M. (2007). *The ability to bounce beyond: The contribution of the school environment to the resilience for Dutch urban middle-adolescents from a low socio-economic background.* Unpublished Doctoral thesis, University of Pretoria.

Erikson, E.H. (1964). *Insight and responsibility.* London, UK: Faber.

Erikson, E.H. (1968). *Identity: Youth and crises.* New York, NY: Norton.

Esposito, C. (1999). Learning in urban blights: School climate and its effect on the school performance of urban, minority, low-income children. *School Psychology Review, 28*(3), 365.

European Foundation Centre. AISBL. (2004). *Universal Education Foundation.* Retrieved from www.efc.be

Everall, R.D., Altrows, K.J., & Paulson, B.L. (2006). Creating a future: A study of resilience in suicidal female adolescents. *Journal of Counselling and Development, 84,* 461-470.

Fairbanks, C.M., & Ariail, M. (2006). The role of social and cultural resources in literacy and schooling: Three contrasting cases. *Research in the Teaching of English, 40*(3), 310-354.

Faircloth, B.S. (2012). Wearing a mask vs. connecting identity with learning. *Contemporary Educational Psychology, 37*(3), 186-194.

Faircloth, B.S., & Hamm, J.V. (2005). Sense of belonging among high school students representing four ethnic groups. *Journal of Youth and Adolescence, 34*(4), 293-309.

Felner, R.D., Favazza, A., Shim, M., Brand, S., Gu, K., & Noonan, N. (2001). Whole school improvement and restructuring as prevention and promotion: Lessons from STEP and the Project on High Performance Learning Communities. *Journal of School Psychology, 39*(2), 177-202.

Field, A. (2009). *Discovering statistics using SPSS.* London, UK: SAGE Publications Ltd.

Finn, J. (1989). Withdrawing from school. *Review of Educational Research, 59*(2), 117-142.

Fisher, D.L., & Fraser, B.J. (1983). Validity and use of the Classroom Environment Scale. *Educational Evaluation and Policy Analysis, 5*(3), 261-271.

Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist, 18*(1), 12-23.

Flum, H., & Bluestein. D.L. (2000). Reinvigorating the study of vocational exploration: A framework for research. *Journal of Vocational Behaviour, 56*(3), 380-404.

Flum, H., & Kaplan, A. (2006). Exploratory orientation as an Educational goal. *Educational Psychologist, 41*(2), 99-110.

Fornell, C., & Larker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Fraser, B.J. (1980). Research on classroom learning environments in the 1970s and 1980s. *Studies in Educational Evaluation, 6,* 221-223.

Fraser, B.J. (2012). Classroom learning environments. In Fraser, B. and Tobin, K.G. and McRobbie, C.J. (Eds.), *Second international handbook of science education.* (pp. 1191-1239). Dordrecht: Springer.

Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218-226.

Freiberg, H.J. (1999). *School climate: Measuring, improving and sustaining healthy learning environments.* London, UK: Falmer Press.

Friborg, O., Hjemdal, O., Martinussen, M. & Rosenvinge, J.H. (2009). Empirical support for resilience as more than the counterpart and absence of vulnerability and symptoms of mental disorder. *Journal of Individual Differences*, *30*(3), 138-151.

Friborg, O., Hjemdal, O., Rosenvinge, J.H., & Martinussen, M. (2003). A new resilience scale for adult resilience: What are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research, 12(2)*, 65-76.

Frimer, J.A., & Walker, L.J. (2009). Reconciling the self and morality: An empirical model of moral centrality development. *Developmental Psychology, 45*(6)*, 1669-1681.

Frydenberg, E., Care, E., Freeman, E., & Chang, E. (2009). Interrelationships between coping, school connectedness and wellbeing. *Australian Journal of Education, 53*(2), 261-276.

Frydenberg, E., Lewis, R., & Frydenberg. E. (2009). Relations among wellbeing, avoidant coping, and active coping in a large sample of Australian adolescents. *Psychological Reports, 104*(3), 745-758.

Fuller, A., McGraw, K., & Goodyear, M. (1999). Bungy jumping through life: What young people say promotes wellbeing and resilience. *Australian Journal of Guidance and Counselling, 9,* 159-165.

Furlong, M.J., Greif, J.L., Bates, M.P., Whipple, A.D., Jimenez, T.C., & Morrison, R. (2005). Development of the California school climate and safety survey-short form. *Psychology in the Schools, 42*(2), 137-149.

Furlong, M.J., Morrison, R., & Boles, S. (1991). *California school climate and safety survey.* Paper presented at the annual meeting of the California Association of School Psychologists, Los Angeles, CA.

Galli, N., & Vealey, R.S. (2008). "Bouncing back" from adversity: Athletes' experiences of resilience. *The Sport Psychologist, 22*(3), 316-335.

Gamez, W., Kotov, R. & Watson, D. (2010). The validity of self-report assessment of avoidance and distress. *Anxiety, Stress and Coping, 23*(1), 87-99.

Gardner, M & Steinberg, L. (2005). Peer influence on risk taking, risk preference, and risk decision making in adolescence and adulthood: An experimental study. *Developmental Psychology, 41*(4), 625-635.

Garmezy, N. (1991). Resiliency and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioural Scientist, 34,* 416-430.

Gasper, D. (2004). *Human wellbeing: Concepts and conceptualisations* (No. 2004/06). WIDER Discussion Papers, United Nations University. Retrieved from http://hdl.handle.net/10419/ 52803on01

Gee, J.P. (2000). Identity as an analytic lens for research in education. *Review of Research in Education, 25*, 99-125.

Gefen, D., Straub, D, & Boudreau, M-C. (2000). Structural equation modeling and regression: Guidelines for research practice. Communications of the association for information systems, 4(1), Article 7.

Gibbs, J. (2006). *Reaching all by creating Tribes Learning Communities.* Windsor, California: Centre Source Systems.

Gibbons, S., & Silva, O. (2011). School quality, child wellbeing and parents' satisfaction. *Economics of Education Review, 30*(2), 312-331.

Gillespie, E., & Allen-Craig, S. (2009). The enhancement of resilience via a wilderness therapy program: A preliminary investigation. *Australian Journal of Outdoor Education, 13*(1), 39-49.

Gilligan, R. (2009). *Promoting resilience: Supporting children and young people who are in care, adopted or in need.* London: British Association for Adoption and Fostering.

Glenn, A.L., Koleva, S., Iyer, R., Graham, J., & Ditto, P.H. (2010). Moral identity in psychopathy. *Judgment and Decision Making, 5*(7), 497-505.

Glover, D., & Coleman, M. (2005). School culture, climate and ethos: Interchangeable or distinctive concepts? *Journal of In-Service Education, 31*(2), 251-272.

Glover, S., Burns, J., Butler, H., & Patton, G. (1998). Social environments and the emotional wellbeing of young people. *Family Matters, 49*, 11-16.

Goldbaum, S., Craig, W.M., Pepler, D., & Connolly, J. (2003). Developmental trajectories of victimisation: Identifying risk and protective factors. *Journal of Applied School Psychology, 19*(2), 139-156.

Gottfredson, D. (1989). Developing effective organizations to reduce school disorder. In O. Moles (ed.) *Strategies to reduce student misbehaviour,* pp. 87-104. Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service NO ED 311 608).

Gough, I. (2004). Human wellbeing and social structures: Relating the universal and the local. *Global Social Policy, 4*(3), 289-311.

Govender, K., Naicker, S., Meyer-Weitz, A., Fanner, J., Naidoo, A., & Penfold, W. (2013). Associations between perceptions of school connectedness and

adolescent health risk behaviours in South African high school learners. *Journal of School Health, 83,* 614-622.

Graham, A., & Fitzgerald, R. (2011). Supporting children's social and emotional wellbeing: Does 'having a say' matter? *Children and Society, 25*(6), 447-457.

Gray, J., & Hackling, M.W. (2009). Wellbeing and retention: A senior school perspective. *Australian Educational Researcher, 36*(2), 119-145.

Green, C., & Oldendorf, S. (2005). Teaching religious diversity through children's literature. *Childhood Education, 8*(4), 209-218.

Gregory, A., & Cornell, D. (2009). Tolerating adolescent needs: Moving beyond zero tolerance policies in high school. *Theory into Practice, 48*, 106-113.

Grotberg, E.H. (1997). *The International Resilience Project.* Graz, Austria: Civitan International Research Centre, UAB.

Gu, Q., & Day, C. (2007). Teachers resilience: A necessary condition for effectiveness. *Teaching and Teacher Education, 23*(8), 1302-1316.

Gucciardi, D.F., Jackson, B., Coutler, T.J., & Mallett, C.J. (2011). The Connor-Davidson Resilience Scale (CD-RISC): Dimensionality and age-related measurement invariance with Australian cricketers. *Psychology of Sport & Exercise, 12*(4), 423-433.

Hagerty, M.B, & Williams, R.A. (1999). The effects of sense of belonging, social support, conflict, and loneliness on depression. *Nursing Research, 48*(4), 215-219.

Hagerty, M.B., Williams, R.A., Coyne, J.C., & Early, M.R. (1996). Sense of belonging and indicators of social and psychological functioning. *Archives of Psychiatric Nursing, 10*(4), 235-244.

Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review, 108*, 814-834.

Hair, J.F. (1992). *Multivariate data analysis. (3rd Edition).* New York: MacMillan.

Hall, S. (2010). Supporting mental health and wellbeing at a whole-school level: Listening to and acting upon children's views. *Emotional and Behavioural Difficulties, 15*(4), 323-339.

Halpin, A.W., & Croft, D.B. (1962). *The organizational climate of schools.* University of Michigan, USA: Washington.

Hamilton, M., & Redmond, G. (2010). *Conceptualisation of social and emotional wellbeing for children and young people, and policy implications.* Sydney, AU: Social Policy Research Centre.

Hammen, C. (1992). Cognition, life stress, and interpersonal approaches to a developmentally psychopathology model of depression. *Developmental Psychopathology, 4*, 189-206.

Harding, S.D. (1982). Psychological wellbeing in Great Britain: An evaluation of the Bradburn Affect Balance Scale. *Personality and Individual Differences, 3*(2), 167-175.

Hardy, S.A. (2006). Identity, reasoning, and emotion: An empirical comparison of three sources of moral motivation. *Motivation and Emotion, 30*(3), 205-213.

Hardy, S.A., & Carlo, G. (2011). Moral identity: What is it, how does it develop, and is it linked to moral action? *Child Development Perspectives, 5*(3), 212-218.

Hardy, S.A., Francis, S.W., Zamboanga, B.L., Kim, S.Y., Anderson, S.G., & Forthun, L.F. (2013). The roles of identity formation and moral identity in college student mental health, health-risk behaviours, and psychological wellbeing. *Journal of Clinical Psychology, 69*(4), 364-382.

Hardy, S.A., Walker, L.J., Olsen, J.A., Woodbury, R.D., & Hickman, J.R. (2014). Moral identity as moral ideal self: Links to adolescent outcomes. *Developmental Psychology, 50*(1), 45-57.

Harrell-Levy, M., & Kerpelman, J. (2010). Identity process and transformative pedagogy: Teachers as agents of identity formation. *Identity, 10*(2), 76-91.

Harrington, D. (2009). *Confirmatory Factor Analysis.* New York, NY: Oxford University Press.

Hart, D., Atkins, R., & Ford, D. (1998). Urban America as a context for the development of moral identity in adolescence. *Journal of Social Issues, 54*(3), 514-530.

Hart, D., Atkins, R., & Ford, D. (1999). Family influences on the formation of moral identity in adolescence: Longitudinal analysis. *Journal of Moral Education, 28*(3), 375-386.

Hart, D., & Carlo, G. (2005). Moral development in adolescence. *Journal of Research on Adolescence, 15*(3), 223-233.

Hart, D., Yates, M., Fegley, S., & Wilson, G. (1995). Moral commitment in inner-city adolescents. In M. Killen & D. Hart (Eds.), *Morality in everyday life: Developmental perspectives* (pp. 317-41). New York, NY: Cambridge University Press.

Harter, S., & Monsour, A. (1992). Development analysis of conflict caused by opposing attributes in the adolescent self-portrait. *Developmental Psychology, 28*(2), 251-260.

Harter, S., Waters, P., & Whitesell, N. (1998). Relational self-worth: Differences in perceived worth as a person across interpersonal contexts among adolescents. *Child Development, 69*(3), 756-766.

Havlinova, M., & Schneidrova, D. (1995). Stress characteristics in school children related to different educational strategies and school climates. *Central European Journal of Public Health, 3*, 205-209.

Hawkins, J.D., Kosterman, R., Catalano, R.F., Hill, K.G., & Abbott, R.D. (2005). Promoting positive adult functioning through social development intervention in childhood: Long-term effects from Seattle Social Development Project. *Archives of Paediatric and Adolescent Medicine, 159*(1), 25-31.

Haynes, N.M., Emmons, C., & Ben-Avie, M. (1997). School climate as a factor in student adjustment and achievement. *Journal of Educational and Psychological Consultation, 8*(3), 321-329.

Haynes, N.M., Emmons, C., & Ben-Avie, M. (2001). *The school development program: Student, staff, and parent school climate surveys.* New Haven, CT: Yale Child Study Centre.

Haynes, N.M., Emmons, C., & Corner, J.P. (1994). *School Climate Survey: Elementary and middle school version.* New Haven, CT: Yale University Child Study Centre.

Heatherton, T.F., & Nichols, P.A. (1994). Personal accounts of successful versus failed attempts at life change. *Personality and Social Psychology Bulletin, 20*(6), 664-675.

Heckman, J., Stixrud, J., & Urzua, S. (2006). The effects of cognitive and noncognitive abilities on labor market outcomes and social behaviour. *Journal of Labor Economics, 24*(3), 411-482.

Helmes, E., Goffin, R., & Chrisjohn, R. (1998). Confirmatory factor analysis of the Life Satisfaction Index. *Social Indicators Research, 45*(1), 371-390.

Hernandez, T.J., & Seem, S.R. (2004). A safe school climate: A systemic approach and the school counsellor. *Professional School Counselling*, *7*(4), 256-262.

Herr, E.L., & Kight, H.R. (1967). The High School Characteristics Index: A study of scale reliabilities. *The Journal of Educational Research, 60*(7), 334-336.

Hess, F.M., Maranto, R.A., & Milliman, S. (2001). Coping with competition: The impact of charter schooling on public school outreach in Arizona. *Policy Studies Journal, 29*(3), 388-404.

Heun, R., Burkart, M., Maier, W., & Bech, P. (1999). Internal and external validity of the WHO Well-Being Scale in the elderly general population. *Acta Psychiatrica Scandinavica, 99*(3), 171-178.

Higgins-D'Alessandro, A., & Power, C.F. (2005). Character, responsibility, and the moral self. In D.K. Lapsley & F.C. Power (Eds.), *Character psychology and character education* (pp. 101–120). Notre Dame, IN: University of Notre Dame Press.

Hill, P.C., & Pargament, K.I. (2008). Advances in the conceptualisation and measurement of religion and spirituality: Implications for physical and mental health. *Psychology of Religion and Spirituality, 5*(1), 3-17.

Hjemdal, O., Friborg, O., Stiles, T.C., Rosenvinge, J.H., & Martinussen, M. (2006). Resilience predicting psychiatric symptoms: A prospective study of protective factors and their role in adjustment to stressful life events. *Clinical Psychology and Psychotherapy*, *13*, 194-201.

Holland, D., Lachicotte, W.J., Skinner, D., & Cain, C. (1998). *Identity and agency in cultural worlds.* Cambridge, MA: Harvard University Press.

Homana, G., Barber, C., & Torney-Purta, J. (2006). *Background on the School Citizenship Education Climate Assessment*. Denver, CO: Education Commission of the States.

Hone, L., Jarden, A., & Schofield, G. (2014). Psychometric properties of the Flourishing Scale in a New Zealand sample. *Social Indicators Research, 119*(2), 1031-1045.

Hopkins, B. (2011). *The Restorative Classroom: Using Restorative Approaches to Foster Effective Learning.* London, UK: Optimus.

Horn, M.L.V. (2003). Assessing the unit of measurement for school climate through psychometric and outcome analyses of the school climate survey. *Educational and Psychological Measurement, 63*(6), 1002-1019.

Hoy, W., & Hannum, J. (1997). Middle school climate: An empirical assessment of organizational health and student achievement. *Educational Administration Quarterly, 33*(3), 290-311.

Hoy, W.K., Tarter, C.J., & Kottkamp, R.B. (1991). *Open Schools/Healthy Schools: Measuring Organizational Climate.* Newbury Park, Calif: Corwin Press.

Hu, L.T., & Bentler, P.M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling, 6*(1)*,* 1-55.

Huang, S.L., & Fraser, B.J. (2009). Science teachers' perceptions of the school environment: Gender differences. *Journal of Research in Science Teaching, 46*(4)*,* 404-420.

Hurd, N., Zimmerman, M., & Xue, Y. (2009). Negative adult influences and the proactive effects of role models: A study with urban adolescents. *Journal of Youth and Adolescence*, *38*(6), 777-789.

Hurtes, K.P., & Allen, L.R. (2001). Measuring resiliency in youth: The resiliency attitudes and skills profile. *Therapeutic Recreation Journal*, *35*(4), 333-347.

Inglehart, R., Foa, R., Peterson, C., & Welzel, C. (2008). Development, freedom, and rising happiness: A global perspective (1981-2007). *Perspectives on Psychological Science, 3*(4), 264-285.

Jahoda, M. (1958) *Current Concepts of Mental Health*. New York, NY: Basic Books.

Jenks, C. (1973). The methodology of inequality. *Sociology of Education, 46*(4), 451-470.

Jew, C.L., Green, K.E., & Kroger, J. (1999). Development and validation of a measure of resiliency. *Measurement and Evaluation in Counselling and Development, 32*(2), 75-89.

Johnson, B., & Howard, S. (2007). Causal chain effects and turning points in young people's lives: A resilience perspective. *Journal of Student Wellbeing, 1*(2), 1-15.

Johnson, L.S. (2009). School contexts and student belonging: A mixed methods study of an innovative high school. *School Community Journal*, *19*(1), 99-118.

Jöreskog, K.G., & Sörbom, D. (1993). *LISREL 8*: *Structural equation modelling with the SIMPLIS command language.* Hillsdale, NJ: Erlbaum.

Jose, P.E., Ryan, N., & Pryor, J. (2012). Does social connectedness promote a greater sense of wellbeing in adolescence over time? *Journal of Research on Adolescence, 22*(2), 235-251.

Juvonen, J. (2007). Reforming middle schools: Focus on continuity, social connectedness, and engagement. *Educational Psychologist, 42*(4), 197-208.

Kabiru, C.W., Beguy, D., Ndugwa, R.P., Zulu, E.M., & Jessor, R. (2012). Making it: understanding adolescent resilience in two informal settlements (slums) in Nairobi, Kenya. *Child & Youth Services, 33*(1), 12-32.

Kafka, G.J., & Kozma, A. (2002). The construct validity of Ryff's scales of Psychological Well-Being (SPWB) and the relationship to measures of subjective wellbeing. *Social Indicators Research, 57*(2), 171-190.

Kahneman, D., & Krueger, A.B. (2006). Developments in the measurement of subjective well-being. *The Journal of Economic Perspectives, 20*(1), 3-24.

Kaiser, H.F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20,* 141-151.

Kallestad, J.H. (2010). Changes in school climate in a long-term perspective. *Scandinavian Journal of Educational Research, 54*(1), 1-14.

Kaplan, A., & Flum, H. (2012). Identity formation in educational settings: A critical focus for education in the 21st century. *Contemporary Educational Psychology, 37*(3), 171-175.

Karvonen, S., Vikat, A., & Rimpela, M. (2005). The role of school context in the increase in young people's health complaints in Finland. *Journal of Adolescence, 28*(1), 1-16.

Kaufman, J., & Gabler, J. (2004). Cultural capital and the extracurricular activities of girls and boys in the college attainment process. *Poetics, 32*(2), 145-168.

Kawachi, I., & Berkmann, L. (2000). Social cohesion, social capital and health. In L. Berkmann & I. Kawachi (Eds.), *Social epidemiology* (pp. 174-190). New York, NY: Oxford University Press.

Kaynak, Ö., Lepore, S.J., & Kliewer, W.L. (2012). Social support and social constraints moderate the relation between community violence exposure and depressive symptoms in an urban adolescent sample. *Journal of Social and Clinical Psychology, 30*(3)*,* 250-269.

Keefer, M.W. (1996). The inseparability of morality and wellbeing: The duty/virtue debate revisited. *Journal of Moral Education, 25*(3), 277-290.

Keller, M.W., & Edelstein, W. (1993). The development of the moral self from childhood to adolescence. In G.G. Noam & T.E. Wren, in cooperation with G. Nunner-Winkler & W. Edelstein (Eds.), *The moral self* (pp. 310-36). Cambridge, MA: MIT Press.

Keller, M.W, Fang, E.X., Fang, G., Edelstein, W., Cecora, L., & Eckert, U. (2004). Self in relationship. In D.K. Lapsley & D. Narvaez (Eds.), *Moral development, self, and identity* (pp. 267-98). Mahwah, NJ: Lawrence Erlbaum Associates.

Kidd, S., & Shahar, G. (2008). Resilience in homeless youth: The key role of self-esteem. *American Journal of Orthopsychiatry, 78*(2)*,* 163-172.

Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The effect of the school environment on the emotional health of adolescents: A systematic review. *Paediatrics, 129*(5), 925-949.

Kids Help Line. (2012). *Information sheet: Mental health issues.* Retrieved from Kids Help: www.kidshelp.com.au/upload/22928.pdf

Kihlstrom, J.F., & Cantor, N. (1984). Mental representations of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology, 17* (pp. 1-47). New York, NY: Academic Press.

Kimhi, S., & Eshel, Y. (2015). The missing link in resilience research. *Psychological Inquiry, 26*(2), 181-186.

Kimhi, S., Hantman, S., Goroshit, M., Eshel, Y., & Zysberg, L. (2012). Elderly people coping with the aftermath of war: Resilience vs. vulnerability. *American Journal of Geriatric Psychiatry, 20*(5), 391-401.

King, M.F., Renó, V.F. & Novo, E. (2014). The concept, features and methods of assessment of human wellbeing with a socioecological context: A literature review. *Social Indicators Research, 116*(3), 681-698.

King, P.E., & Roeser, R.W. (2009). Religion and spirituality in adolescent development. In R.M. Lerner & L.D. Steinberg, *Handbook of adolescent psychology* (pp. 435-478). Hoboken, NJ: John Wiley & Sons.

Klem, L. (2000). Structural equation modelling. In L.G. Grimm & P.R. Yarnold (Eds.), *Reading and understanding multivariate statistics, Vol. II* (pp. 227-260). Washington, DC: American Psychological Association.

Kline, R.B. (2010). *Principles and practices of structural equation modelling* (3rd ed.). New York, NY: Guilford Press.

Kline, R.B., Fish, M.C., & Maniago, E.B. (2007). Making schools safe. *Journal of Applied School Psychology, 23*(1), 1-30.

Klohnen, E.C. (1996). Conceptual analysis and measurement of the construct of ego-resiliency. *Journal of Personality and Social Psychology, 70*(5), 1067-1079.

Kochanska, G. (2002). Committed compliance, moral self, and internalisation: A meditational model. *Developmental Psychology, 38*(3), 339-351.

Kohl, D., Recchia, S., & Steffgen, G. (2013). Measuring school climate: An overview of measurements scales. *Educational Research, 55*(4), 411-426.

Kohlberg, L. (1984). Moral stages and moralization: The cognitive developmental approach. In L. Kohlberg (Ed.), *Essays on moral development: Vol. 2. The Psychology of moral development: The nature and validity of moral stages* (pp. 170-205). San Francisco: Harper & Row.

Konu, A., & Lintonen, T. (2005). Theory-based survey analysis of wellbeing in secondary schools in Finland. *Health Promotion International, 21*(1), 27-36.

Konu, A., & Rimpela, M. (2002). Wellbeing in schools: A conceptual model. *Health Promotion International, 17*(1), 79-87.

Krettenauer, T., & Hertz, S. (2015). What develops in moral identities? A critical review. *Human Development, 58*(3), 137-153.

Kristjansson, K. (2012). Positive psychology and positive education: Old wine in new bottles? *Educational Psychologist, 47*(2), 86-105.

Kroger, J. (2007). *Identity development: Adolescence through adulthood.* Thousand Oaks, California: Sage Publications.

Krovetz, M.L. (1999). *Fostering resiliency: Expecting all students to use their minds and hearts well.* Thousand Oaks, CA: Corwin Press.

Kupermine, G.P., Leadbeater, B.J., Emmons, C., & Blatt, S.J. (1997). Perceived school climate and difficulties in the social adjustment of middle school students. *Applied Developmental Science, 1*(2), 27-41.

Kushman, J., & Lane, S. (1980). A multivariate analysis of factors affecting perceived life satisfaction and psychological wellbeing among the elderly. *Social Sciences Quarterly, 61*, 264-277.

La Guardia, J., & Ryan, R.M., Couchman, C., & Deci, E. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need, fulfillment, and wellbeing. *Journal of Personality and Social Psychology, 79*(3), 367-384.

Lapsley, D.K., & Lasky, B. (2001). Prototypic moral character. *Identity, 1*(4), 345-363.

Lapsley, D.K, & Narvaez, D. (2004). A social-cognitive approach to the moral personality. In D.K. Lapsley & D. Narvaez (Eds.), *Moral development, self and identity,* 189-212. Mahwah, NJ: Erlbaum.

Lapsley, D.K., & Narvaez, D. (2005). Today, moral identity: Tomorrow, self-esteem? *Applied Developmental Psychology, 26*(2)*,* 235-240.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, England: Cambridge University Press.

Law, P.C., Cuskelly, M., & Carroll, A. (2013). Young people's perceptions of family, peer and school connectedness and their impact on adjustment. *Australian Journal of Guidance and Counselling, 23*(1), 115-140.

Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York, NY: Springer.

Lee, J., & Shute, V.J. (2010). Personal and social-contextual factors in k-12 academic performance: An integrative perspective on student learning. *Educational Psychologist, 45*(3), 185-202.

Lee T., Kwong W., Cheung C., Ungar M., & Cheung M.Y. (2010) Children's resilience-related beliefs as a predictor of positive child development in the face of adversities: Implications for interventions to enhance children's quality of life. *Social Indicators Research, 95*(3)*,* 437-453.

Lee, V.E., & Ready, D.D. (2007). *Schools within schools.* New York, NY: Teacher's College Press.

Leipold, B., & Greve, W. (2009). Resilience: A conceptual bridge between coping and development. *European Psychologist, 14*(1), 40-50.

Leithwood, K., & Jantzi, D. (2009). A review of empirical evidence about school size effects. *Review of Educational Research, 79*(1), 464-490.

Lerner, R.M., & Schmid-Callina, K. (2014). The study of character development: Towards tests of a relational developmental systems model. *Human Development, 57*(6)*,* 322-346.

Lerner, R.M, & Steinberg, L. (2009). *Handbook of adolescent psychology* (3rd ed.). Hoboken, NJ: Wiley.

Lester, B.M., Masten, A.S., & McEwen, B.S. (2006). Resilience in children. *Annuals of the New York Academy of Sciences, 1094*(1), xiii-xv.

Lewin, K. (1936). *Principles of topological psychology.* New York, NY: McGraw.

Lewinsohn, P.M., Rhode, P., Seeley, J.R., & Fischer, S.A. (1993). Age-cohort changes in the life time occurrence of depression and other mental disorders. *Journal of Abnormal Psychology, 102*(1), 110-120.

Lewis, M.A., Phillippi, J., & Neighbors, C. (2007). Morally based self-esteem, drinking motives, and alcohol use among college students. *Psychology of Addictive Behaviours, 21*(3), 398-403.

Libbey, H.P. (2004). Measuring student relationships to school: Attachment, bonding, connectedness, and engagement. *The Journal of School Health, 74*(7), 274-283.

Loukas, A., & Robinson, S. (2004). Examining the modern role of perceived school climate in adolescent adjustment. *Journal of Research on Adolescence, 14*(2), 209-233.

Löve, J., Andersson, L., Moore, C.D., & Hensing, G. (2013). Psychometric analysis of the Swedish translation of the WHO wellbeing index. *Quality of Life Research*, *23*(1), 293-297.

Lowhorn, G.J. (2007). *Qualitative and quantitative research: How to choose the best design.* Presented at Academic Business World International Conference. Nashville, Tennessee.

Lucas, N., Nicholson, J.M., & Erbas, B. (2013). Child mental health after parental separation: The impact of resident/non-resident parenting, parent mental health, conflict and socioeconomics. *Journal of Family Studies, 19*(1), 53-69.

Lucas, R.E., Diener, E., & Suh, E.G. (1996). Discriminant validity of wellbeing measures. *Journal of Perspective Social Psychology, 71*(3), 616-628.

Ludtke, O., Robitzsch, A., Trautwein, U., & Kunter, M. (2009). Assessing the impact of learning environments: How to use student ratings of classroom or school characteristics in multilevel modelling. *Contemporary Educational Psychology, 34*, 120-131.

Lundman, B., Strandberg, G., Eisemann, M., Gustafson, Y., & Brulin, C. (2007). Psychometric properties of the Swedish version of the Resilience Scale. *Scandinavian Journal Caring Sciences, 21*(2), 229-237.

Luthar, S.S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicchetti, & D.J. Cohen (Eds.), *Developmental psychopathology* (Vol. 3), (pp. 740-795). New York, NY: Wiley.

Luthar, S.S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543-562.

Luyckx, K., Soenens, B., Goossens, L., Beckx, K., & Wouters, S. (2008). Identity exploration and commitment in late adolescence: Correlates of perfectionism and mediating mechanisms on the pathway to well-being. *Journal of Social and Clinical Psychology, 27*(4)*,* 336-361.

Ma, L., Phelps, E., Lerner, J.V., & Lerner, R.M. (2009). The development of academic competence among adolescents who bully and who are bullied. *Journal of Applied Developmental Psychology, 30*(5), 628-644.

Ma, X., & Klinger, D.A. (2000). Hierarchical linear modelling of student and school effects on academic achievement. *Canadian Journal of Education, 25*(1), 41-55.

Ma, X., & Willms, J.D. (2004). School disciplinary climate: Characteristics and effects on eighth grade achievement. *Alberta Journal of Educational Research, 50*(2), 169-188.

MacDonald, G.B., & Validivieso, R. (2000). *Measuring deficits and assets: How we track youth development now, and how we should track it.* Washington, DC:

Academy for Educational Development, Centre for Youth Development and Policy Research.

Mackinnon, D.P., Lockwood, C.M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the the product and resampling methods. *Multivariate Behavioural Research, 39*(1), 99-128.

MacNeil, A.J., Prater, D.L., & Busch, S. (2009). The effects of school culture and climate on student achievement, *International Journal of Leadership in Education,* 12(1), 73-84.

Maddox, S.J., & Prinz, R.J. (2003). School bonding in children and adolescents: Conceptualization, assessment and associated variables. *Clinic of Child Family and Psychology Review, 6*(1), 31-49.

Maes, L., & Lievens, J. (2003). Can the school make a difference? A multilevel analysis of adolescent risk and health behaviour. *Social Science & Medicine, 56*(3), 517-529.

Mahoney, J.L., Cairns, R.B., & Farmer, T.W. (2003). Promoting interpersonal competence and educational success through extracurricular activity participation. *Journal of Educational Psychology, 95*(2), 409-418.

Mahoney, J.L., Larson, R., & Eccles, J. (Eds.). (2005). *Organised activities as contexts of development.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Mak, W.W., Ng, I.S., & Wong, C.C. (2011). Resilience: Enhancing wellbeing through the positive cognitive triad. *Journal of Counselling Psychology, 58*(4), 610-617.

Manvell, E.C. (2012). *The violence continuum: Creating a safe school climate.* United Kingdom, UK: Rowman & Littlefield.

Marcus, R.F., & Sanders-Reio, J. (2001). The influence of attachment on school completion. *School Psychology Quarterly, 16*(4), 427-444.

Mardia, K.V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika, 57*(3)*,* 519-530.

Mardia, K.V. (1974). Applications of some measures of multivariate skewness and kurtosis in testing normality and robustness studies. *Sankhyã, 36*(2)*,* 115-128.

Marsh, H.W., Balla, J.R., & McDonald, R.P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin, 103*(3), 391-410.

Marsh, H.W., & Kleitman, S. (2003). School athletic participation: Mostly gain with little pain. *Journal of Sport & Exercise Psychology, 25*(2), 205-228.

Maroulis, S., & Gomez, L.M. (2008). Does ''connectedness'' matter?: Evidence from a social network analysis within a small-school reform. *Teachers College Record, 110*(9), 1901-1929.

Mascolo, M.F. (2014). Toward a relational-developmental model of character development: Commentary on Lerner and Schmid Callina. *Human Development, 57*(6)*,* 347-353.

Maslow, A. (1962). *Toward a psychology of belonging.* Princeton, NJ: Van Nostrand.

Maslowski, R. (2006). A review of inventories for diagnosing school culture. *Journal of Educational Administration, 44*(1), 6-35.

Masten, A.S. (2006). Promoting resilience in development: A general framework for systems of care. In P. Flynn, Dudding, & J.G. Barber (Eds.), *Promoting resilience in child welfare* (pp. 3-17). Ottawa, Ontario, Canada: University of Ottawa Press.

Masten, A.S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology, 23*(2), 493-506.

Masten, A.S., Best, K.M., & Garmezy, M. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology, 2*(4)*,* 425-444.

Masten, A.S., Herbers, J.E., Cutuli, J.J., & Lafavor, T.L. (2008). Promoting competence and resilience in the school context. *Professional School Counselling, 12*(2), 76-84.

Masten, A.S., & Motti-Stefanidi, F. (2009). Understanding and promoting resilience in children: Promotive and protective processes in schools. In T.B. Gurkin, & C.R. Reynolds (Eds.), *Handbook of School Psychology* (4th ed.) (pp.721-738). Hoboken, NJ: Wiley.

Matsuba, M.K., & Walker, L.J. (2005). Young adult moral exemplars: The making of self through stories. *Journal of Research on Adolescence,* 15(3), 275-97.

McCaslin, M. (2009). Co-regulation of student motivation and emergent identity. *Educational Psychologist, 44*(2), 137-146.

McCulloch, B.J. (1992). Gender and race: An interaction affecting the replicability of wellbeing across groups. *Women & Health, 19*(4)*,* 65-89.

McDill, E.L., & Rigsby, L.C. (1973). *Structure and process in secondary schools: The academic impact of educational climates.* Baltimore: Johns Hopkins University Press.

McDill, E.L., Rigsby, L.C., & Meyers, E.D. (1969). Educational climates of high schools: Their effects and sources. *American Journal of Sociology, 74*(6), 567-586.

McDonald, R.P., & Ho, M.R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods, 7*(1)*,* 64-82.

McDowell, I. (2010). Measures of self-perceived wellbeing. *Journal of Psychosomatic Research, 69*(1), 69-79.

McGraw, K., Moore, S., Fuller, A., & Bates, G. (2008). Family, peer and school connectedness in final year secondary school students. *Australian Psychologist, 43*(1), 27-37.

McGregor, J.A. (2004). Researching wellbeing: Communicating between the needs of policy makers and the needs of people. *Global Social Policy, 4*(3), 337-358.

McKennell, A. (1978). Cognition and affect in perceptions of wellbeing. *Social Indicators Research, 5*(1), 389-426.

McMahon, A. (2001). A Cultural Perspective on School Effectiveness, School Improvement and Teacher Professional Development. In A. Harris & N. Bennett (Eds.), *School Effectiveness and School Improvement: alternative perspectives* (pp. 126)*.* London, UK: Continuum.

McMillan, J.H., & Reed, D.F. (1994). At risk students and resilience: Factors contributing to academic success. *Clearing House, 67*(3), 137-140.

McNeely, C.A., Nonnemaker, J.M., & Blum, R.W. (2002). Promoting school connectedness: Evidence from the national longitudinal study of adolescent health. *Journal of School Health, 72*(4), 138-146.

MCEETYA (2008). *Melbourne Declaration on Educational Goals for Young Australians.* Ministerial Council on Education, Employment, Training and Youth Affairs.

Meeuwisse, M., Severiens, S.E., & Born, M.P. (2010). Learning environment, interaction, sense of belonging and study success in ethnically diverse student groups. *Research in Higher Education, 51*(6), 528-545.

Menninger, K.A. (1930). *The human mind.* New York, NY: Knopf.

Miller, R. (2001). *Unleashing the power of kids at Hope; Hope-ology Module I Training manual.* Reston, VA: American Association for Leisure and Recreation.

Millings, A., Buck, R., Montgomery, A., Spears, M., & Stallard. P. (2012). School connectedness, peer attachment, and self-esteem as predictors of adolescent depression. *Journal of Adolescence, 35*(4), 1061-1067.

Mission Australia. (2014). *Mission Australia youth survey 2014 - Full report.* Mission Australia. Mission Australia.

Mitchell, J.V., Jr. (1967). *A study of high school learning environments and their impact on students.* (Report U.S. Office of Education, Project No. 5-8032). Rochester, NY: University of Rochester.

Mitchell, J.V., Jr. (1968). Dimensionality and differences in the environmental press of high schools. *American Educational Research Journal, 5*(4), 513-530.

Mitra, D. (2004). The significance of students: Can increasing "student voice" in schools lead to gains in youth development? *Teachers College Record, 106*(4), 651-688.

Modecki, K.L., Barber, B.L., & Eccles, J.S. (2014). Binge drinking trajectories across adolescence: For early maturing youth, extra-curricular activities are protective. *Journal of Adolescent Health, 54*(1), 61-66.

Moos, R.H. (1974). Systems for the assessment and classification of human environments: An overview, in Moos, R.H. and Insel, P.M. (Eds.), *Issues in social ecology: Human milieus.* Palo Alto, CA: National Press Books.

Moos, R.H. (1979). *Evaluating educational environments: Procedures measures, findings, and policy implications.* San Francisco, CA: Jossey-Bass.

Morrison, B. (2007). *Restoring Safe School Communities*. Sydney, AU: Federation Press.

Morrison, B., Blood, P., & Thorsborne, M. (2005). Practicing restorative justice in school communities: Addressing the challenge of culture change. *Public Organisation Review, 5*(4)*, 335-357.

Morrison, G.M., & Allen, M.R. (2009). Promoting student resilience in school contexts. *Theory into Practice*, *46*(2), 162-169.

Mounts, N.S., & Steinberg. L. (1995). An ecological analysis of peer influence on adolescent grade point average and drug use. *Developmental Psychology, 31*(6), 915-922.

Mrug, S., Elliott, M.N., Davies, S., Tortolero, S.R., Cuccaro, P., & Schuster, M.A. (2014). Early puberty, negative peer influence and problem behaviours in adolescent girls. *Paediatrics, 133*(1), 7-12.

Murray, H.A. (1938). *Explorations in personality.* New York, Oxford: Oxford University Press.

Nabuzoka, D., Renning, J.A., & Handegard, B.H. (2009). Exposure to bullying: Reactions and psychological adjustment of secondary school learners. *Educational Psychology, 29*(7), 849-866.

Najaka, S., Gottfredson, D., & Wilson, D. (2001). A meta-analytic inquiry into the relationship between selected risk factors and problem behaviour. *Prevention Science, 2*(4), 257-271.

Nakkula, M.J., & Toshalis, E. (2006). *Understanding youth: Adolescent development for educators.* Cambridge, MA: Harvard Education Press.

Nasir, N.S., & Kirshner, B. (2003). The cultural construction of moral and civic identities. *Applied Developmental Science, 7*(3), 138-147.

National Advisory Council of Mental Health. (2009). *A mentally healthy future for all Australians.* Discussion paper, November, Australia.

National Association of Secondary School Principals — NASSP. (1987). *Comprehensive assessment of school environments: School climate survey.* Reston, VA: National Association of Secondary School Principals.

National Council for Curriculum and Assessment. (2007). *A curriculum framework for guidance in post-primary education.* Discussion Paper, January, Ireland.

National School Climate Centre. (2014). *When the three Rs are not enough.* Retrieved 12 18, 2014, from National School Climate Centre: www.schoolclimate.org/climate/

Neill, J.T., & Dias, K.L. (2001). Adventure education and Resilience: The double-edged sword. *Journal of Adventure Education and Outdoor Leadership, 1*(2), 35-42.

Nelson, R., & DeBacker, T. (2008). Achievement motivation in adolescents: The role of peer climate and best friends. *Journal of Experimental Education, 76*(2), 170-189.

Neugarten, B.L., Havighurst, R.J., & Tobin, S.S. (1961). The measurement of life satisfaction. *Journal of Gerontology, 16,* 134-143.

Noltemeyer, A.L., & Bush, K.R. (2013). Adversity and resilience: A synthesis of international research. *School Psychology International, 34*(5), 474-487.

Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory.* New York, NY: McGraw-Hill, Inc.

Nussbaum, M. (2003). Capabilities as fundamental entitlements: Sen and social justice. *Feminist Economics, 9*(2-3), 33-59.

Nutbeam, D., Smith, C., Moore, L., & Bauman, A. (1993). Warning! Schools can damage your health: Alienation from school and its impact on health behaviour. *Journal of Paediatric Child Health, 29*(1), 25-30.

Nygren, B., Randström, K.B., Lejonklou, A.K., & Lundman, B. (2004). Reliability and validity of a Swedish language version of the Resilience Scale. *Journal of Nursing Measurement, 12*(3), 169-178.

O'Dougherty-Wright, M., Masten, A.S., & Narayan, A.J. (2013). Resilience processes in development: Four waves of research on positive adaptation in the context of adversity. In S. Goldsten and R.B. Brooks (Eds.). *Handbook of resilience in children* (pp.15-37). New York: Springer.

Oldfather, P. (1995). Songs "come back most to them": Students' experiences as researchers. *Theory Into Practice, 34*(2), 131-137.

Oldfield, J., Humphrey, N., & Hebron, J. (2016). The role of parental and peer attachment relationships and school connectedness in predicting adolescent mental health outcomes. *Child and Adolescent Mental Health, 21*(1), 21-29.

Olsson, C.A., Bond, L., Burns, J.M., Vella-Brodrick, D.A., & Sawyer, S.M. (2003). Adolescent resilience: A concept analysis. *Journal of Adolescence, 26*(1), 1-11.

Olweus, D. (1993). *Bullying at school: What we know and what we can do.* Oxford, UK; Cambridge, USA: Blackwell.

Oshio, A., Kaneko, H., Nagamine, S., & Nakaya, M. (2003). Construct validity of the Adolescent Resilience Scale. *Psychological Reports, 93*(3 Pt 2), 1217-1222.

Osterman, K.F. (2000). Students' need for belonging in the school community. *Review of Educational Research, 70*(3), 323-367.

Ozer, E.J., Ritterman, M.L., & Wanis, M.G. (2010). Participatory action research (PAR) in middle school: Opportunities, constraints, and key processes. *American Journal of Community Psychology, 46*(1-2), 152-166.

Pace, C.R., & Stern, G.G. (1958). An approach to the measurement of psychological characteristics of college environments. *Journal of Educational Psychology, 49*(5), 269-277.

Panter-brick, C., Leckman, J.F. (2013). Resilience in child development: Interconnected pathways to wellbeing. *Journal of Child Psychology and Psychiatry, 54*(4), 333-336.

Patton, G.C., Glover, S., Bond, L., Butler, H., Di Pietro, G., & Bowes, G. (2000). The Gatehouse Project: A systematic approach to mental health promotion in secondary schools. *Australian and New Zealand Journal of Psychiatry, 34*(4), 586-589.

Pavot, W., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. *Journal of Positive Psychology, 3*(2)*,* 137-152.

Payne, A.A., Gottfredson, D.C., & Gottfredson, G.D. (2003). Schools as communities: The relationships among communal school organisation, student bonding, and school disorder. *Criminology, 41*(3), 749-778.

Penuel, W., & Wertsch, J. (1995). Vygotsky and identity formation: A sociocultural approach. *Educational Psychologist, 30*(2), 83-92.

Perry, A. (1908). *The management of a city school.* New York, NY: Macmillan.

Phinney, J.S. (1996). Understanding ethnic diversity: The role of ethnic identity. *American Behavioural Scientist, 40*(2), 143-153.

Piaget, J. (1932). *The Moral Judgment of the Child.* London, UK: Kegan Paul.

PISA: Program for Internal Student Assessment. (2003). *Student engagement at school: A sense of belonging and participation (survey).* Washington, DC: Organisation for Economic Co-operation and Development.

Pollard, E.L., & Lee, P.D. (2003). Child wellbeing: A systematic review of literature. *Social Indicators Research, 61*(1), 59-78.

Polk, L. (1997). Toward a middle range theory of resilience. *Advances in Nursing Science, 19*(3), 1-13.

Power, F.C. (2004). Moral self in community. In D.K. Lapsley & D. Narvaez (Eds). *Moral development, self and identity*, pp.47-64. Cambridge, England: Psychology Press.

Pratt, M.W., Hunsberger, B., Pancer, S.M., & Alisat, S. (2003). A longitudinal analysis of personal value socialisation: Correlates of moral self-ideal in adolescence. *Social Development, 12*(4), 563-585.

Preece, C. (2009). School connectedness. *Physical & Health Education Journal, 75*(3), 23-24.

Prinstein, M.J., Brechwald, W.A., & Cohen, G.L. (2011). Susceptibility to peer influence: Using a performance-based measure to identify adolescent males at heightened risk for deviant peer socialisation. *Developmental Psychology, 47*(4), 1167-1172.

Ramelow, D., Currie, D., & Felder-Puig, R. (2015). The assessment of school climate: Review and appraisal of published student-report measures. *Journal of Psycho-educational Assessment, 33*(8)*,* 1-13.

Ramsey, W., & Clark, E.E. (1990) *New ideas for effective school improvement: Vision, Social Capital & Evaluation.* London, UK: Falmer Press.

Raykov, T., & Marcoulides, G.A. (2008). *An introduction to applied multivariate analysis*. New York, NY: Routledge.

Ready, D.D., & Lee, V.E. (2008). Choice, equity and schools-within-schools reform. *Teachers College Record, 110*(9), 1930-1958.

Reimer, K. (2003). Committed to caring: Transformation in adolescent moral identity. *Applied Developmental Science, 7*(3), 129-137.

Reistenberg, N. (2011). Seeding restorative justice measures in Minnesota: Challenging opportunities. Paper presented at the ESRC Restorative Approaches to Conflict in Schools. Seminar #4, Scotland.

Rentoul, A.J., & Fraser. B.J. (1983). Development of a school-level environment questionnaire. *Journal of Educational Administration, 21*(1), 21-39.

Resnick, M.D., (2000). Protective factors, resiliency and healthy youth development. *Adolescent Medicine, 11,* 157-164.

Resnick, M.D., Bearman, P.S., Blum, R.W., Bauman, K.E., Harris, K.M., Jones, J., … & Ireland, M. (1997). Protecting adolescents from harm: Findings from the national longitudinal study on adolescent health. *Journal of the American Medical Association, 278*(10), 823-832.

Resnick, M.D., Harris, L.J., & Blum, R.W. (1993). The impact of caring and connectedness on adolescent health and wellbeing. *Journal of Paediatric Child Health, 29*(1), 3-9.

Resnick, B.A., & Inguito, P.L. (2011). The Resilience Scale: psychometric properties and clinical applicability in older adults. *Archives of Psychiatric Nursing, 25*(1), 11-20.

Reynolds, D., Teddlie, C., Creemers, B., Scheerens, J., & Townsend, T. (2000). *The International Handbook of School Effectiveness Research.* London, NY: Falmer Press.

Reynolds, S.J., & Ceranic, T.L. (2007). The effects of moral judgment and moral identity on moral behaviour: An empirical examination of the moral individual. *Journal of Applied Psychology, 92*(6), 1610-1624.

Rich, Y., & Schachter, E.P. (2008). Identity education in Jewish religious secondary schools. *Paper presented at the International Seminar on Religious Education and Values.* Ankara, Turkey.

Rich, Y., & Schachter, E.P. (2011). Identity education: A conceptual framework for educational researchers and practitioners. *Educational Psychologist, 46*(4), 222-238.

Rich, Y., & Schachter, E.P. (2012). High school identity climate and student identity development. *Contemporary Educational Psychology, 37*(3), 218-228.

Ricoeur, P. (1992). *Oneself as another.* Chicago, IL: University of Chicago Press.

Rigby, K. (2006). Bully/victim students and classroom climate. *Youth Studies Australia, 25*(3), 34-41.

Riolli, L., & Savicki, V. (2003). Optimism and coping as moderators of the relationship between chronic stress and burnout. *Psychological Reports, 92*(3), 1215-1226.

Roach, A.T., & Kratochwill, T.R. (2004). Evaluating school climate and school culture. *Teaching Exceptional Children, 37*(1), 10-17.

Rodriguez, N., Mira, C. B., Myers, H. F., Morris, J. K., & Cardoza, D. (2003). Family or friends: Who plays a greater supportive role for Latino college students. *Cultural Diversity and Ethnic Minority Psychology. 9(3),* 236-250.

Roeser, R.W., Galloway, M., Casey-Cannon, S., Watson, C., Keller, L., & Tan, E. (2008). Identity representations in patterns of school achievement and

wellbeing among early adolescent girls. *Journal of Early Adolescence, 28*(1), 115-152.

Roseth, C.J., Johnson, D.W., & Johnson, R.T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive and individualistic goal structures. *Psychological Bulletin, 134*(2)*,* 223-246.

Rowe, F., & Stewart, D. (2011). Promoting connectedness through whole-school approaches. *Health Education*, *111*(1), 49-65.

Rowe, F., Stewart, D., & Patterson, C. (2007). Promoting school connectedness through whole school approaches. *Health Education, 107*(6), 524-536.

Rowling, L., & Rissel, C. (2000). Impact of the national health promoting school initiative. *Journal of School Health, 79*(6), 260-261.

Ruini, C., Ottolini, F., Rafanelli, C., Tossani, E., Ryff, C.D., & Fava, G.A. (2003). The relationship of psychological well-being to distress and personality. *Psychotherapy and Psychosomatics, 72*(5), 268-275.

Russell, J. (2002). *Enabling learning: The crucial work of school leaders.* Melbourne, AU: Australian Council for Educational Research.

Rutter, J. (2003). *Working with refugee children.* York, UK: Joseph Rowntree Foundation.

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57*(3), 316-331.

Rutter, M. (1990). *Competence under stress: Risk and protective factors.* In J. Rolf, A.S. Masten, D. Cicchetti, K.H. Nuechterlin, & S. Weintraub (Eds.), Risk and protective factors in the development of psychopathology (pp. 181-214). New York, NY: Cambridge University Press.

Rutter, M. (2000). *Resilience reconsidered: Conceptual considerations, empirical findings, and policy implications.* In Shonkoff, J.P., Meisels, S.J. (Eds.), Handbook of early childhood intervention (2nd ed.) (pp. 651-682). New York, NY: Cambridge University Press.

Rutter, M., & Maughan, B. (2002). School effectiveness findings, 1979-2002. *Journal of School Psychology, 40*(6), 451-475.

Rutter, M., Maughan, B., Moretimore, P., Ouston, J., & Smith, A. (1979). *Fifteen thousand hours: Secondary schools and their effects of children.* London, UK: Open Books.

Ruus, V., Veisson, M., Leino, M., Ots, L., Pallas, L., … & Ruus, V-R. (2007). Students' wellbeing, coping, academic success, and school climate. *Social Behaviour and Personality, 35*(7), 919-936.

Ryan, A.M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal, 38*(2), 437-460.

Ryan, R.M., & Deci, E.L. (2001). Oh happiness and human potentials: A review of research on hedonic and eudemonic wellbeing. *Annual Review of Psychology, 52*(1), 141-166.

Ryff, C.D. (1989). Happiness is everything, or is it?: Explorations on the meaning of psychological wellbeing. *Journal of Personality and Social Psychology, 57*(6), 1069-1081.

Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological wellbeing revisited. *Journal of Personality and Social Psychology, 69*(4), 719.

Ryzin, M.J., Gravely, A.A., & Roseth, C.J. (2009). Autonomy, belongingness, and engagement in school as contributors to adolescent psychological wellbeing. *Journal of Youth and Adolescence, 38*(1)*,* 1-12.

Saab, H., & Klinger, D. (2010). School differences in adolescent health and wellbeing: Findings from the Canadian health behaviour in school-aged children study. *Social Science and Medicine, 70*(6), 850-858.

Sailor, W., Dunlap, G., Sugai, R., & Horner, R. (2009). *Handbook of positive behaviour support* (Eds.). New York, NY: Springer.

Salzinger, S., Feldman, R.S., Rosario, M., & Ng-Mak, D.S. (2010). Role of parent and peer relationships and individual characteristics in middle school children's behavioural outcomes in the face of community violence. *Journal of Research on Adolescence*, *21*(2), 395-407.

Samdal, O. (1998). *The school environment as a risk or resource for students' health related behaviours and subjective wellbeing.* Bergen: Research Centre for Health Promotion, University of Bergen.

Samdal, O., Nutbeam, D., Wold, B., & Kannas, L. (1998). Achieving health and educational goals through schools: A study of the importance of school climate and the students' satisfaction with school. *Health Education Research, 13*(3)*,* 383-397.

San Diego County. (1984). San Diego County effective schools program. San Diego, CA: Office of Education. (ERIC Document Reproduction Service No. ED230337)

Sandy, S.V., Cohen, J., & Fisher, M.B. (2006). *Understanding and assessing school climate: Development and validation of the Comprehensive School Climate Inventory (CSCI).* Internal report to Centre for Social Emotional Education (now known as NSCC).

Santosa, P.I., Wei, K.K., & Chan, H.C. (2005). User involvement and user satisfaction with information-seeking activity. *European Journal of Information Systems, 14*(4), 361-361.

Savolainen, A., Taskinen, H., Laippala, P. & Huhtala, H. (1998). Pupils' assessments of secondary school's working environment. *Sosiaalila 'aʾketieteellinen Aikakauslehti, 35,* 129-141.

Schachter, E.P. (2005). Context and identity formation: A theoretical analysis and a case study. *Journal of Adolescent Research, 20*(3), 375-395.

Schimmack, U., Radhakrishnan, P., Oishi, S., Dzokoto, V., & Ahadi, S. (2002). Culture, personality, and subjective wellbeing: Integrating process models of

life satisfaction. *Journal of Personality and Social Psychology, 82*(4), 582-593.

Schoen, L.T., & Teddlie, C. (2008). A new model of school culture: A response to a call for conceptual clarity 1. *School Effectiveness and School Improvement, 19*(2), 129-153.

Schumacker, R.E., & Lomax, R.G. (2004). *A beginner's guide to structural equation modelling* (3rd ed.). New York, NY: Routledge.

Schunk, D.H., & Zimmerman, B.J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modeling. *Reading & Writing Quarterly, 23*(1), 7-25.

Schwartz, S.J., Mason, C.A., Pantin, H., Wang, W., Brown, C.H., Campo, A.E., & Szapocznik, A. (2009). Relationships of social context and identity to problem behaviours among high-risk Hispanic adolescents. *Youth & Society, 40*(4), 541-570.

Searcy, S. (1996). Friendship interventions for the integration of children and youth with learning and behaviour problems. *Preventing School Failure, 40*(4), 131-134.

Seeskin, K. (2008). Plato and the origin of mental health. *International Journal of Law and Psychiatry, 31*(6), 487-494.

Seligman, M.E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *The American psychologist, 55*(1), 5-14.

Seligman, M.E., Ernst, R.M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education, 35*(3), 293-311.

Sen, A.K. (1985). Wellbeing, agency and freedom: The Dewey Lectures 1984. *Journal of Philosophy, 82*(4), 169-221.

Sexton, M.B., Byrd, M.R., & Von Kluge, S. (2010). Measuring resilience in women experiencing infertility using the CD-RISC: Examining infertility-related

stress, general distress, and coping styles. *Journal of Psychiatric Research, 44*(4), 236-241.

Sfard, A., & Prusak, A. (2009). Telling identities: In search of an analytic tool for investigating learning as a culturally shaped activity. *Educational researcher, 34*(4), 14-22.

Shao, R., Aquino, K., & Freeman, D. (2008). Beyond moral reasoning: A review of moral identity research and its implications for business ethics. *Business Ethics Quarterly, 18*(4), 513-540.

Sherman, L.W., Gottfredson, D., MacKenzie, D., Eck, J., Reuter, P., & Bushway, S. (Eds.). (1997). *Preventing crime: What works, what doesn't, what's promising.* Washington. DC: U.S. Department of Justice, Office of Justice Programs.

Shochet, I.M., Dadds, M., Ham, D., & Montague, R. (2006). School connectedness is an underemphasised parameter in adolescent mental health. *Journal of Clinical Child and Adolescent Psychology, 35*(2), 170-179.

Shochet, I.M., Smyth, T., & Homel, R. (2007). The impact of parental attachment on adolescent perception of the school environment and school connectedness. *Australian and New Zealand Journal of Family Therapy, 28*(2), 109-118.

Shipley, B. (2000). *Cause and correlation in biology: A user's guide to path analysis, structural equations, and causal inference.* Cambridge, UK: Cambridge University Press.

Silins, H., & Mulford, B. (2004). Schools as learning organisations: Effects of teacher leadership and student outcomes. *School Effectiveness and School Improvement, 15*(3-4), 443-466.

Sin, N.L., & Lyubomirsky, S. (2009). Enhancing wellbeing and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology, 65*(5), 467-487.

Sinclair, V.G., & Wallston, K.A. (2004). The development and psychometric evaluation of the brief resilient coping scale. *Assessment, 11*(1), 94-101.

Stainback, W, Stainback, S., & Willkinson, A. (1992). Encouraging peer supports and friendships. *Teaching Exceptional Children, 24*(2), 6-11.

Steinberg, L. (2002). *Adolescence* (6th ed.). New York, NY: McGraw Hill.

Stern, G.G. (1964). *High School Characteristics Index.* Syracuse, NY: Psychological Research Centre, Syracuse University.

Stern, G.G. (1970). *People in context: Measuring person-environment congruence in education and industry*. Oxford: Wiley.

Stewart, D. (1979). A critique of school climate: What it is, how it can be improved and some general recommendations. *Journal of Educational Administration, 17*(2), 148-159.

Stewart, E.A. (2003). School social bonds, school climate, and school misbehaviour: A multilevel analysis. *Justice Quarterly, 20*(3), 575-601.

Stiglbauer, B., Gnambs, T., Gamsjager, M., & Batinic, B. (2013). The upward spiral of adolescents' positive school experiences and happiness: Investigating reciprocal effects over time. *Journal of School Psychology, 51*(2), 231-242.

Stockard, J., & Mayberry, M. (1992). *Effective educational environments.* Newbury Park, CA: Corwin.

Sumi, K. (2014). Reliability and validity of Japanese versions of the flourishing scale and the scale of positive and negative experience. *Social Indicators Research, 118*(2)*,* 601-615.

Swedish National Agency for Education. (2006). *Curriculum for the compulsory school system, the pre-school class and the leisure-time centre.* Retrieved from http://www.skolverket.se

Tagiuri, R. (1988). The concept of organisational climate. In R. Tagiuri & G.H. Litevin (Eds.), *Organisational climate: Explanation of a concept* (pp. 11-32). Boston, US: Harvard University Press.

Tappan, M.B. (2006). Moral functioning as mediated action. *Journal of Moral Education, 35*(1), 1-18.

Taylor, C. (1989). *Sources of the self: The making of the modern identity.* Cambridge, MA: Harvard University Press.

Taylor, C. (1991). *The malaise of modernity.* Toronto, CA: House of Anansi Press.

Teddlie, C., & Reynolds, D. (2000). *The international handbook of school effectiveness research.* London, NY: Falmer Press.

Teese, R., & Polesel, J. (2003). *Undemocratic schooling: Equity and quality in mass secondary education in Australia.* Melbourne, AU: Melbourne University Press.

Teo, T., Ursavas, O.F., & Bahcekapili, E. (2012). An assessment of pre-service teachers' technology acceptance in Turkey: A structural equation modelling approach. *The Asia-Pacific Education Researcher, 21,* 191-202.

Thapa, A., & Cohen, J. (2013). A review of school climate research. *Review of Educational Research, 83*(3), 357-385.

Thapa, A., Cohen, J., Guffrey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research*, 83(3), 357-385.

Thorkildsen, T., & Walberg, H. (2004). *Nurturing morality.* New York, NY: Kluwer Academic/Plenum Publishers.

Theron, L.C., & Engelbrecht, P. (2012). Caring teachers: Teacher-youth transactions to promote resilience. In M. Unger (Ed.), *The social ecology of resilience: a handbook of theory and practice* (pp. 265-280). New York, NY: Springer.

Tomyn, A.J., & Cummins, R.A. (2011). The subjective wellbeing of high-school students: Validating the personal wellbeing index — School children. *Social Indicators Research*, *101*(3) 405-418.

Tomyn, A.J., Tyszkiewicz, M.D., & Cummins, R.A. (2013). The Personal Wellbeing Index: Psychometric equivalence for adults and school children. *Social Indicators Research, 110*(3), 913-924.

Topp, C.W., Ostergaard, S.D., Sandergaard, S., & Bech, P. (2015). The WHO-5 Wellbeing Index: A systematic review of the literature. *Psychotherapy and Psychosomatics, 84*(3), 167-176.

Trickett, E.J., & Moos, R.H. (1973). Social environment of junior high and high school classrooms. *Journal of Educational Psychology, 65*(1), 93-102.

Trochim, W.M., & Donnelly, J.P. (2006). *The research methods knowledge base* (3rd Ed.). Cincinnati, OH: Atomic Dog.

Tsai, J., Chentsova-Dutton, Y., & Wong, Y. (2002). Why and how we should study ethnic identity, acculturation, and cultural orientation. In G. C. Nagayama Hall, & S. Okazaki (Eds.), *Asian American psychology: The science of lives in context* (pp. 41–65). Washington, DC: American Psychological Association.

Tugade, M.M., & Fredrickson, B.L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology, 86*(2), 320-333.

UNESCO. (1995). *Declaration of principles on tolerance: Culture of peace programme* Vol. 2010. Retrieved from http://www.unesco.org/cpp/uk/declarations/tolerance.pdf

UNESCO. (1997). *Inclusive schools and community support programs: Report 1996, First Phase 1997*. Paris, FR: UNESCO.

UNESCO. (2000). *Inclusive education and education for all: A challenge and a vision. Section for special needs education*. Paris, FR: UNESCO.

Ungar, M. (2008) Resilience across cultures. *British Journal of Social Work, 38*(2), 218-235.

Ungar, M., Ghazinour, M., & Richter, J. (2013). Annual Research Review: What is resilience within the ecology of human development? *Journal of Child Psychology and Psychiatry, 54*(4), 348-366.

Ungar, M., Russell, P., & Connelly, G. (2014). School-Based interventions to enhance the resilience of students. *Journal of Educational and Developmental Psychology, 4*(1), 66-83.

U.S. Department of Education. (1988). *National Education Longitudinal Study School Questionnaire,* NELS: 88, first follow-up. Washington, DC: National Centre for Educational Statistics.

U.S. Department of Health and Human Services. (2000, November). *Healthy People 2010. With understanding and improving health and objectives for improving health* (2 vols., 2nd ed.). Washington, DC: Government Printing Office.

Vaandering, D. (2009). *Towards effective implementation and sustainability of restorative justice in Ontario public schools: A critical case study. (Unpublished doctoral dissertation).* London, Canada: University of Western Ontario.

Van Damme, J., Van Landeghem, G., De Fraine, B., Opdenakker, M.C., & Onghena, P. (2001). *Does school make the difference? Effectiveness of schools, teachers and classes in the first years of secondary education.* Leuven: Acco.

VanderVen, K. (2004). Adults are still needed!: Intergenerational and mentoring activities. *Reclaiming Children and Youth, 13*(2), 94-102.

Van Houtte, M. (2005). Climate or culture: A plea for conceptual clarity in school effectiveness research. *School Effectiveness and School Improvement, 16,* 71-89.

Van Vuuren, H., Van der Westhuizen, P.C., & Van der Wait. J.L. (2012). The management of diversity in schools: A balancing act. *International Journal of Educational Development, 32*(1), 155-162.

Vaquera, E. (2009). Friendship, educational engagement, and school belonging: Comparing Hispanic and White adolescents. *Hispanic Journal of Behavioural Sciences, 31*(4), 492-514.

Vieno, A., Nation, M., Perkins, D.D., & Santinello, M. (2007). Civic participation and the development of adolescent behaviour problems. *Journal of Community Psychology*, *35*(6), 761-777.

Virtanen, M., Kivimaki, M., Luopa, P., Vahtera, J., Elovainio, M., Jokela, J., & Pietikäinen, M. (2009). Staff reports of psychosocial climate at school and adolescents' health, truancy and health education in Finland. *European Journal of Public Health, 19*(5)*,* 554-560.

Voisin, D.R., Salazar, L.F., Crosby, R., Diclemente, R.J., Yarber, W.L., & Staples-Horne, M. (2005). Teacher connectedness and health-related outcomes among detained adolescents. *The Journal of Adolescent Health*, *37*(4), 17-23.

Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wagnild, G.M. (2009). A review of the Resilience Scale. *Journal of Nursing Measurement, 17*(2), 105-113.

Wagnild, G.M., & Young, H.M. (1990). Resilience among older women. *Journal of Nursing Scholarship, 22*(4), 252-255.

Wagnild, G.M., & Young, H.M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1*(2), 165-178.

Walker, L.J. (2014). Moral personality, motivation, and identity. In M. Killen & J.G. Smetana (Eds.), *Handbook of moral development* (pp. 497-519). New York, NY: Psychology Press.

Walker, L.J., & Pitts, R.C. (1998). Naturalistic conceptions of moral maturity. *Developmental Psychology, 34*(3), 403-419.

Walsh, F. (2012). Facilitating family resilience: relational resources for positive youth development in conditions of adversity. In M. Unger (Ed.), *The social ecology of resilience: a handbook of theory and practice* (pp. 173-185). New York, NY: Springer.

Wang, M.C., & Gordon, E.W. (1994). *Educational resilience in inner-city America: Challenges and prospects.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Wang, M.C., Haertel, G.D, & Walberg, H.J. (1993). Toward a knowledge-base for school learning. *Review of Educational Research, 63*(3), 249-294.

Wang, M.C., Selman, R.L., Dishion, T.J., & Stormshak, E.A. (2010). A two-bit regression analysis of the co-variation between middle school students' perceived school climate and behavioural problems. *Journal of Research on Adolescence, 20* (2), 274-286.

Wang, Y., Wu, M., & Wang, H. (2009). Investigating the determinants and age and gender differences in the acceptance of mobile learning. *British Journal of Educational Technology, 40*(1)*,* 106-118.

Warr, P. (1968). A study of psychological wellbeing. *Journal of Psychology, 69,* 111-121.

Waterman, A.S. (2001). Two conceptions of happiness: Contrasts of personal expressiveness (eudemonia) and hedonic enjoyment. *Journal of Personal Social Psychology, 64*(4), 678-691.

Watson, M. (2008). Developmental discipline and moral education. In L. Nucci & D. Narvaez (Eds). *Handbook of moral and character education* (pp. 175-203). The Netherlands: Sense Publishers.

Waxman, H.C., Gray, J.P., & Padron, Y.N. (2003). *Review of research on educational resilience.* Santa Cruz, CA: Centre for Research on Education, Diversity and Excellence, University of California.

Way, N., Reddy, R., & Rhodes, J. (2007). Students' perceptions of school climate during the middle school years: Associations with trajectories of psychological and behavioural adjustment. *American Journal of Community Psychology, 40*(3-4)*,* 194-213.

Weissman, M.M. (1987). Advances in psychiatric epidemiology: Rates and risks for major depression. *American Journal of Public Health, 77*(4), 445-451.

Welsh, W. (2000). The effects of school climate on school disorder. *Annals of the American Academy of Political and Social Science, 567*, 88-107.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge, UK: Cambridge University Press.

Werner, E.E., & Smith, R.S. (1992). *Overcoming the odds: High-risk children from birth to adulthood.* Ithaca, NY: Cornell University Press.

White, N., La Salle, T., Ashby, J.S., & Meyers, J. (2014). A brief measure of adolescent perceptions of school climate. *School Psychology Quarterly, 29*(3), 349-359.

Whittaker, C.R., Salend, S., & Elhoweris, H. (2009). Religious diversity in schools: Addressing the issues. *Intervention in School and Clinic, 44*(5), 314-319.

Wickarante, P.J., Weissman, M.M., Leaf, P.J., & Holford, T.R. (1989). Age, period and cohort effects on the risk of major depression: Results from five United States communities. *Journal of Clinical Epidemiology, 42*, 333-343.

Wigfield, A., Eccles, J.S., Schiefele, U., Roeser, R., & Davis-Kean, P. (2006). Motivation. In N. Eisenberg (Ed.), *Handbook of child psychology* (Vol. 3, 6th ed., pp. 933-1002). New York, NY: Wiley.

Willms, J.D. (2003). *Student engagement at school: A sense of belonging and participation.* Results from PISA 2000, OECD.

Wilks, S.E. (2008). Psychometric evaluation of the shortened resilience scale among Alzheimer's caregivers. *American Journal of Alzheimer's Disease & Other Dementias, 23*(2), 143-149.

Wolin, S.J., & Wolin, S, (1993). *Bound and determined: Growing up resilient in a troubled family.* New York, NY: Villard Press.

Woodier, D. (2011). Building resilience in looked After young people: A moral values approach. *British Journal of Guidance & Counselling, 39*(3), 259-282.

World Bank, Harvard School of Public Health. (1996). *The global burden of disease: A comprehensive assessment of mortality and disability, injuries, and risk factors in 1990 and projected to 2020.* Cambridge, MA: Harvard University Press.

World Health Organisation (WHO). (1948). *Construction in basic documents.* Geneva: WHO.

World Health Organisation (WHO). (1986). Charter adopted at an International Conference on Health Promotion: *The move towards a new public health.* Ottawa, CA: World Health Organisation.

World Health Organisation (WHO). (1997). The Jakarta declaration on leading health promotion into the 21st century. *Health Promotion International, 12*(4)*, 261-264.*

World Health Organisation (WHO). (1998). *Wellbeing measures in primary health care/the DepCare Project: Report on a WHO meeting in Stockholm, Sweden 12–13 February 1998.* Copenhagen, Denmark: WHO Regional Office for Europe.

Wortham, S. (2006). *Learning identity: The joint emergence of social identification and academic learning.* Cambridge, UK: Cambridge University Press.

Wowra, S. (2007). Moral identities, social anxiety, and academic dishonesty among American college students. *Ethics & Behaviour, 17*(3)*,* 303-321.

Yarcheski, A., Scholoveno, M.A., & Mahon, N.E. (1994). Social support and wellbeing in adolescents: The mediating role of hopefulness. *Nursing Research, 43*(5), 288-292.

Yiengprugsawan, S., Seubsman, S., Khamman, S., Lim, L.L.Y., & Sleigh, A.C. (2010). Personal Wellbeing Index in national cohort of 87,134 Thai adults. *Social Indicators Research, 98*(2), 201-215.

You, S., Furlong, M.J., Felix, E., Sharkey, J.D., & Tanigawa, D. (2008). Relations among school connectedness, hope, life satisfaction, and bully victimisation. *Psychology in the Schools, 45*(5), 446-460.

Youniss, J., & Hart, D. (2005). Intersection of social institutions with civic development. *New Directions for Child and Adolescent Development, 2005*(109)*,* 73-81.

Youniss, J., & Yates, M. (1997). *Community service and social responsibility in youth.* Chicago, Ill: University of Chicago Press.

Zaleski, E.H., Levey-Thors, C., & Schiaffino, K.M. (1998). Coping mechanisms, stress, social support, and health problems in college students. *Applied Developmental Science, 2*(3), 127-137.

Zanon, C., Bardagi, M.P., Layous, K., & Hutz, C.S. (2014). Validation of the Satisfaction with Life Scale to Brazilians: Evidences of measurement noninvariance across Brazil and US. *Social Indicators Research, 119*(1), 443-453.

Zullig, K.J., Collins, R., Ghani, N., Patton, J.M., Scott-Huebner, E., & Ajamie, J. (2014). Psychometric support of the school climate measure in a large, diverse sample of adolescents: A replication and extension. *Journal of School Health, 84*(2), 82-90.

APPENDIX A

What's Happening in This School?
(WHITS) Questionnaire

What's Happening In This School? (WHITS)
Student View of the

About You

Please note: Your responses to this questionnaire will be kept confidential.

1. Are you male or female?

○ Male

○ Female

2. What is the name of your school?

[text box]

Assessing the School Climate

This part of the questionnaire consists of 6 sections. These sections contain statements about what happens in your school. For each statement, describe how often this practice takes place in the school. There is no right or wrong answers, it is your opinion that is wanted.

3. Teacher Support

At this school......

	Almost Never	Seldom	Sometimes	Often	Almost Always
1. Teachers have high expectations of me.	○	○	○	○	○
2. Teachers try to understand my problems.	○	○	○	○	○
3. Teachers listen to me.	○	○	○	○	○
4. Teachers take an interest in my background.	○	○	○	○	○
5. Teacher treat me fairly.	○	○	○	○	○
6. Teachers support me when I have problems.	○	○	○	○	○
7. Teachers go out of their way to address my needs.	○	○	○	○	○
8. Teachers are willing to listen to my problems.	○	○	○	○	○

4. Peer Connectedness

At this school......

	Almost Never	Seldom	Sometimes	Often	Almost Always
9. I get along with other students.	○	○	○	○	○
10. I belong to a group of friends.	○	○	○	○	○
11. I make friends with students from different backgrounds.	○	○	○	○	○
12. I socialise with students from different cultures.	○	○	○	○	○
13. Students talk to me.	○	○	○	○	○
14. Students support me.	○	○	○	○	○
15. Students help me.	○	○	○	○	○
16. I feel accepted by other students.	○	○	○	○	○

5. School Connectedness

At this school......

	Almost Never	Seldom	Sometimes	Often	Almost Always
17. I look forward to coming to school.	○	○	○	○	○
18. I enjoy being at school.	○	○	○	○	○
19. I feel accepted.	○	○	○	○	○
20. I feel included at school.	○	○	○	○	○
21. I feel welcome.	○	○	○	○	○
22. I am part of a community.	○	○	○	○	○
23. I am respected.	○	○	○	○	○
24. I am valued.	○	○	○	○	○

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6. Affirming Diversity

At this school......

	Almost Never	Seldom	Sometimes	Often	Almost Always
25. My cultural background is valued.	○	○	○	○	○
26. Days that are important to my culture are recognised.	○	○	○	○	○
27. I am encouraged to understand the culture of others.	○	○	○	○	○
28. My background is known by students and teachers.	○	○	○	○	○
29. I am taught about the background of others.	○	○	○	○	○
30. Religious days that are relevant to me are recognised as being important.	○	○	○	○	○
31. My culture is understood.	○	○	○	○	○
32. My cultural background is respected by students.	○	○	○	○	○

7. Rule Clarity

At this school......

	Almost Never	Seldom	Sometimes	Often	Almost Always
33. The rules at this school are clear to me.	○	○	○	○	○
34. The school rules help me to feel safe.	○	○	○	○	○
35. School rules protect me.	○	○	○	○	○
36. The rules make it clear to me that certain behaviours are unacceptable.	○	○	○	○	○
37. I understand why the school rules are in place.	○	○	○	○	○
38. I know the school rules.	○	○	○	○	○
39. I am required to follow the rules at this school.	○	○	○	○	○
40. Teachers help me to follow the rules at this school.	○	○	○	○	○

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What's Happening In This School? (WHITS)
Student View of the

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8. Reporting and Seeking Help

At this school.......

	Almost Never	Seldom	Sometimes	Often	Almost Always
41. I can report bad behaviour to school officials.	○	○	○	○	○
42. I am encouraged to report bad behaviour.	○	○	○	○	○
43. I am confident to talk to a teacher if I am bullied.	○	○	○	○	○
44. I am encouraged to report bullying.	○	○	○	○	○
45. I know how to report problems.	○	○	○	○	○
46. I can report incidents without others finding out.	○	○	○	○	○
47. It is okay to tell a teacher if I feel unsafe.	○	○	○	○	○
48. I am able to seek counselling.	○	○	○	○	○

School Climate Outcomes

This section contains statements about moral identity, wellbeing and resilience. You will be asked how often each practice takes place. As with the previous section, there are no 'right' or 'wrong' answers. Your opinion is what is wanted. For each statement, please mark the response that best indicates how often these things happen.

Wellbeing, Moral Identity and Resilience
(WERMI) Questionnaire

Source of scales

Wellbeing Scale (Aldridge & Ala'i, 2013) adapted from the WHO-5 (WHO, 1998).

Resilience Scale (Aldridge & Ala'i, 2013) adapted from Resilience Scale 15 (Neill & Dias, 2001)

Moral Identity Scale (Aldridge, Ala'i & Fraser, 2016)

Used with permission of the authors

9. Moral Identity

	Almost Never	Seldom	Sometimes	Often	Almost Always
1. When I see someone having a problem, I offer to help.	○	○	○	○	○
2. I speak up when someone is bullied.	○	○	○	○	○
3. When I see someone being picked on, I try to stop it.	○	○	○	○	○
4. I try to stop my friends from spreading rumours about others.	○	○	○	○	○
5. I am happy for other students when they do well.	○	○	○	○	○
6. I feel that other students are happy for me when I do well.	○	○	○	○	○
7. I help other students when they are experiencing a problem.	○	○	○	○	○
8. I am concerned when other students are having problems.	○	○	○	○	○

10. Wellbeing

In the last two weeks.......

	Almost Never	Seldom	Sometimes	Often	Almost Always
9. I have felt cheerful.	○	○	○	○	○
10. I have been happy.	○	○	○	○	○
11. I have felt calm.	○	○	○	○	○
12. I have been energetic.	○	○	○	○	○
13. I have had a positive attitude about myself.	○	○	○	○	○
14. I have woken up feeling fresh and rested.	○	○	○	○	○
15. I have slept well.	○	○	○	○	○
16. I have expected things to go my way.	○	○	○	○	○

11. Resilience

	Almost Never	Seldom	Sometimes	Often	Almost Always
17. I am able to adapt to change.	○	○	○	○	○
18. I am persistent.	○	○	○	○	○
19. I am determined.	○	○	○	○	○
20. I try to see the humorous side of problems.	○	○	○	○	○
21. I bounce back after difficult times.	○	○	○	○	○
22. I stay focused when under pressure.	○	○	○	○	○
23. I can achieve goals despite obstacles.	○	○	○	○	○
24. I come through difficult times with little trouble.	○	○	○	○	○

Thank you for your assistance in completing this questionnaire.

APPENDIX C

Information Pack for Administrators

Questionnaire Administration Manual

Helen Riekie

This manual will outline the procedures for successfully administering the questionnaire.

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Table of Contents

Introduction

The purpose of this questionnaire is to gain insight into students' perceptions of school climate and its' relationship with their wellbeing, moral identity and resilience. The data from this questionnaire will be used for a doctoral study. The questionnaire consists of a total of 70 questions and will take approximately 15-20 minutes to complete. The questionnaire will be administered online. Students will need to be emailed the link and would then be able to access the questionnaire when they click on it.

Outline of Questionnaire Supervisor's Role

Questionnaire Supervisors serve as the point of contact between myself (Helen Riekie) and teachers whose classes are selected for surveying. The steps below outline the questionnaire administration procedures for the Nominated Staff Member/Questionnaire Supervisor.

In addition to supervising the questionnaire, the Supervisor is asked to take responsibility for;

- Administration and collection of the Parent Consent Forms
- Selection of appropriate classes/teachers
- Briefing of teachers re questionnaire administration procedures
- Emailing questionnaire link to all participants.
- Safe return of the Parent Consent Forms in replied envelope.

Contact Details

Contact: Helen Riekie

Mobile Number: 0414 366 765

Work Number: 8392 9500

Work Email: hriekie@cardijn.catholic.edu.au

Personal Email: helenriekie@yahoo.com

Checklist 1 – Preparation – Leading up to the Day of the Questionnaire

Step 1:   Receive procedural materials

Materials include;

1. Parent Consent Forms
2. Self Addressed Envelope for return of "Parent Consent Forms"
3. Questionnaire Administration Manual

Step 2:   Contact relevant teachers and distribute Parent Consent form.

Step 3:   Schedule in-class administration time with teachers. Please aim to complete within the first 4 weeks of Term 4, 2013.

Step 4: Brief teachers involved.

Step 5: Ensure collection of Parent Consent form.

Step 6: Ensure all students have access to a computer and the internet, for the purpose of the online questionnaire.

Step 7: Ensure bilingual dictionaries are available for EAL students on the day of the questionnaire.

Checklist 2 – On the Day of the Questionnaire

Step 8: Conduct questionnaire administration. This process includes;

1. Sending the email with the 'hyperlink' to each student.
2. Reading the Questionnaire Administration Statement to the class
3. Following the procedures outlined in the script

Questionnaire Administration Script

1. Send students email with questionnaire introduction and hyperlink.
   https://www.surveymonkey.com/s/CSJX6FD

2. Read statement below before students access the email
   "The questionnaire you are asked to complete is an on-line questionnaire about your school, wellbeing, resilience and moral identity. It will take approximately 15 minutes to complete. You are asked for your opinion, so there is no wrong or right answer."

3. Instruct students to open email and click on questionnaire link.

4. Invite them to begin.

5. **IMPORTANT:** Please ensure all students at the end of the questionnaire clicked "done" otherwise their responses will not be recorded.

Checklist 3 – After the Questionnaire

Step 9: Return completed Parent Consent forms in self-addressed envelope.

Copy of Questionnaire

APPENDIX D

Ethics Approval Letter

Memorandum

To	Helen Riekie, SMEC
From	Pauline Howat, Administrator, Human Research Ethics Science and Mathematics Education Centre
Subject	Protocol Approval **SMEC-25-13**
Date	9 August 2013
Copy	Jill Aldridge, SMEC

Thank you for your "Form C Application for Approval of Research with Low Risk (Ethical Requirements)" for the project titled *"Investigating the effect of school climate on student's wellbeing, resilience and moral identity"*. On behalf of the Human Research Ethics Committee, I am authorised to inform you that the project is approved.

Approval of this project is for a period of 4 years **6th August 2013** to **5th August 2017**.

Your approval has the following conditions:

(i) Annual progress reports on the project must be submitted to the Ethics Office.

(ii) It is your responsibility, as the researcher, to meet the conditions outlined above and to retain the necessary records demonstrating that these have been completed.

The approval number for your project is **SMEC-25-13**. Please quote this number in any future correspondence. If at any time during the approval term changes/amendments occur, or if a serious or unexpected adverse event occurs, please advise me immediately.

PAULINE HOWAT
Administrator
Human Research Ethics
Science and Mathematics Education Centre

Please Note: The following standard statement must be included in the information sheet to participants:
This study has been approved under Curtin University's process for lower-risk Studies (Approval Number xxxx). This process complies with the National Statement on Ethical Conduct in Human Research (Chapter 5.1.7 and Chapters 5.1.18-5.1.21). For further information on this study contact the researchers named above or the Curtin University Human Research Ethics Committee. c/- Office of Research and Development, Curtin University, GPO Box U1987, Perth 6845 or by telephoning 9266 9223 or by emailing hrec@curtin.edu.au.

J:\SAE\SMEC\office\ETHICS\Ethics Approval Letter 2013\Riekie.docx

CRICOS Provider Code 00301J

APPENDIX E

Candidacy Approval

Curtin University is a trademark of Curtin University of Technology
CRICOS Provider Code WA 00301J, NSW 02637B

ID:	120889652
Date:	Tue 18/06/2013 04:39 PM
From:	Science & Engineering Student Services
To:	[15958974] Helen Riekie

Attachments: 15958974_RIEKIE_RSP.pdf

Subject: Confirmed Candidature with Ethics - 15958974

Dear Helen,

I am pleased to advise that the Faculty Graduate Studies Committee approved your Application for Candidacy, **noting Form C Ethical Clearance must be granted by the Human Research Ethics Committee prior to the commencement of your data collection**. Please refer to the Research Ethics webpage for further details http://research.curtin.edu.au/guides/ethics.cfm.

The relevant candidacy details have now been entered against your records. Please find attached an up to date Research Student Profile confirming the changes.

Under the Higher Degree by Research Rules, the Graduate Studies Committee must approve any future changes to your candidacy i.e. change of title, change of thesis committee.

Please note, where a change of title reflects a changed direction of research, a second Application for Candidacy with a new research proposal must be submitted for approval.

On behalf of the Committee, I wish you every success in your research.

Regards,

Brendan

Faculty Graduate Studies Officer | Email: sciengresearch@curtin.edu.au | Telephone: +61 8 9266 7303|Facsimile: +61 8 9266 4606

APPENDIX F

Principal Letter

Principal Name
School Name
Address
Fax:
For attention: <principal name>

Saturday 31 August

Dear <principal name>,

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN <school name>

The purpose of this letter is to seek permission to conduct research in your school.

My name is Helen Riekie, and I am undertaking an external Doctorate at Curtin University, Western Australia. The research I wish to conduct for my Doctoral thesis involves the investigation of **the effect of school climate on student's wellbeing, resilience and moral identity.** This thesis is under the supervision of Doctor Jill Aldridge and Professor Barry Fraser.

I am currently Head of Senior School at Cardijn College, Noarlunga Downs. I have been a full time secondary teacher and educator since 1994. I believe this research is a worthwhile endeavor for the schools involved, as it can provide insight and critical data on Australian students' perception of school climate and the effect it has on wellbeing, resilience and moral identity.

Research evidence suggests that school climate can have a significant effect on adolescent health and development (Rowe, Stewart & Patterson, 2007) and play a vital role in promoting the intellectual, physical, social, emotional, moral, spiritual and aesthetic development and wellbeing of young Australians. This research seeks to further explore the relationship between school climate and student wellbeing, resilience and moral identity from the students' perspective.

I am writing to seek your consent to administer a questionnaire to four Year 11 classes in Term 4 this year that will assess students' perceptions of the school climate and self-reflection on resilience, wellbeing and moral identity.

If you choose to participate your school and students will remain anonymous throughout the study; from data analysis, through to the final report on findings. Every school and student will be coded as numeric values so as to remove identifying features from the data, during data preparation and entry. Access to the data will only be available to me, and my supervisor. All participating schools, on request, will have exclusive access to their own data.

I have attached a copy of my Candidacy Approval (15958974 Riekie), Ethics Approval and the Questionnaire. Please note: the Questionnaire will be administered online to students after parental consent has been received.

Upon completion of the study, the results from the survey analysis will be available in one or more of the following sources; thesis; presentation at an international research conference; and academic journals.

In anticipation of your favorable approval, I am available on helenriekie@yahoo.com or 0414 366 765 to discuss any questions with you or your nominated point of contact.

If you require any further information, please do not hesitate to contact me. Thank you for your time and consideration in this matter.

Yours sincerely,

Mrs Helen Riekie

APPENDIX G

Parent/Student Letter with accompanying Introduction Sheet

October 2013

Dear Parent/Guardian,

REQUEST FOR PERMISSION FOR YOUR CHILD TO COMPLETE A QUESTIONNAIRE

The purpose of this letter is to seek permission for your child to complete a questionnaire being administered to South Australian Year 11 students. The purpose of this questionnaire is to gain insight into students' perceptions of school climate and its' relationship with their wellbeing, moral identity and resilience. The data from this questionnaire will be used for a doctoral study. Please note: Written permission from your principal and relevant governing bodies has been sought and granted.

Your child's responses to the questionnaire will be anonymous. Your child's name will not be collected or appear anywhere on the questionnaire and complete anonymity will be guaranteed.

Your consent and your child's participation are completely voluntary and your child may withdraw at any time. There is no reward for participating or consequence for not participating. Completion of the questionnaire is estimated to take no more than twenty minutes of class time.

For more details regarding the doctoral study, please read the attached statement.

There are two copies of this letter. After signing them, keep one copy for your records and return the other one to your child's school. Thank you in advance for your cooperation and support.

If you agree to allow your child to participate, please sign below. After signing your name, return this sheet to your child's school.

Yours sincerely,

Mrs Helen Riekie
BEd (Mus), MEDL

....

PARENTAL PERMISSION RETURN FORM
Curtin University School Questionnaire

Child's Name: _____   Homeroom: _____

Parent's Signature: _____

Date: _____

INTRODUCTION SHEET

Project Title

Investigating the effect of school climate on student's wellbeing, resilience and moral identity.

Principal Researcher

External Doctorate student at Curtin University, Perth.

Currently Cardijn College, Head of Senior School.

Purpose of the research

Past research evidence suggests that school climate can have a significant effect on adolescent health and development. This research seeks to further explore the relationship between school climate and student wellbeing, resilience and moral identity from the students' perspective.

Research approach

This study will involve a quantitative approach and thus include the administration of a questionnaire to assess students' perceptions of the school climate and examine students' self-reports of resilience, wellbeing and moral identity. The questionnaire will be administered to approximately 800 Year 11 students from 20 South Australian Independent Schools. The entire survey consists of a total of 70 questions and will take approximately 20 minutes to complete.

Participation

Written permission from the principal and relevant governing bodies has been sought and granted. Given that the participants will be volunteers and minors, signed permission from their parent or guardian will be sought. Participants will have the right to withdraw from the study at their discretion.

Anonymity

The participating schools and students will remain anonymous throughout the study; from data collection, through to the final report on findings. The schools and students will be coded as numeric values so as to remove identifying features from the data during data preparation and entry. Access to the data will only be available to the researcher and Ph.D. supervisor. If a participating school seeks access or feedback from the study, they will only have access to their own data.

Storage and Future Use of Data

Any electronic data collected during the study will be stored on a password-protected computer. Any paper format data collected will be stored in locked filing cabinet in both my home and work office. Only my Ph.D. supervisor and researcher will have access to any data. All electronic and paper format data produced will be stored in a safe and secure location in the Science and Mathematics Education Centre at Curtin University for a period of 5 years after publication of thesis.

Results

The results from the survey analysis will be available in one or more of the following sources; thesis; presentation at an international conference; academic journals.

Questions and/or complaints

If you, have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish Curtin University, Western Australia.

Should you wish to make a complaint on ethical grounds please contact the Human Research Ethics Committee (phone: 9266 2784 or hrec@curtin.edu.au or in writing C/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth WA 6845)

Research Approval Number

This project has been approved by the Curtin University Human Research Ethics Committee. Approval number **SMEC-25-13.**

APPENDIX H

Approval Letter from the Director of Catholic Education in South Australia

Catholic Education
SOUTH AUSTRALIA

Ms Helen Riekie
Head of Senior School
Cardijn College
PO Box 438
NOARLUNGA CENTRE SA 5168

Dear Helen

Thank you for your letter of 13 August 2013 in which you seek permission to investigate the effect of school climate on students' wellbeing, resilience and moral identity by administering a survey to approximately 800 Year 11 students across 20 South Australian Independent schools.

In the normal course, permission of the Principal of each school in which you wish to conduct research is required. Research in Catholic schools is granted on the basis that individual students, schools and the Catholic sector itself is not specifically identified in published research data and conclusions.
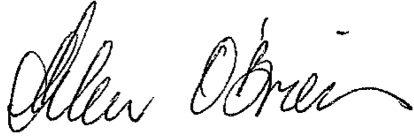
Approval is also contingent upon the following conditions, i.e. that:

- a copy of the questionnaire has been provided to the Principal

- the permission of parents has been obtained

- the research complies with the ethics proposal of the *Curtin University*

- the research complies with any provisions under the Privacy Act that may require adherence by you as researcher in gathering and reporting data

- no comparison between schooling sectors is made

- the researcher will be carrying out the research within view of the class teacher or authorised school observer

- sector requirements relating to child protection and police checks are met by researchers:

  o where researchers obtain information in relation to a student which suggests or indicates abuse, this information must be immediately conveyed to the Director of Catholic Education SA

  o all researchers and assistants, who in the course of the research interact in any way with students, are required to provide evidence of an acceptable police clearance direct to the school.

Further information can be obtained direct from the Police Check Unit (08) 8210 9283 or via email at receptionpcu@adelaide.catholic.org.au.

Please accept my very best wishes for the research process.

Yours sincerely

HELEN O'BRIEN
DEPUTY DIRECTOR

3 September 2013

Descriptive statistics of the items of WHITS and WERMI

Items	Mean	Standard Deviation	Skewness	Kurtosis
TS1	3.90	.892	-.800	.888
TS2	3.39	1.017	-.381	-.115
TS3	3.74	.970	-.606	.086
TS4	2.96	1.038	-.039	-.445
TS5	3.79	.997	-.703	.108
TS6	3.75	1.032	-.760	.275
TS7	3.28	1.077	-.238	-.444
TS8	3.51	1.049	-.330	-.495
PC9	4.24	.886	-1.396	2.273
PC10	4.56	.847	-2.228	4.933
PC11	4.29	.866	-1.299	1.721
PC12	4.22	.921	-1.143	.956
PC13	4.34	.889	-1.451	1.989
PC14	3.95	1.020	-.885	.327
PC15	3.96	1.041	-.944	.378
PC16	4.02	1.066	-1.116	.807
SC17	3.01	1.158	-.286	-.720
SC18	3.17	1.104	-.296	-.505
SC19	3.80	1.050	-.884	.414
SC20	3.77	1.049	-.839	.332
SC21	3.85	1.036	-.880	.428
SC22	3.80	1.120	-.911	.250
SC23	3.84	1.046	-.951	.579
SC24	3.70	1.067	-.785	.254
AD25	3.66	1.134	-.663	-.202
AD26	3.49	1.335	-.555	-.834
AD27	3.90	.969	-.784	.396
AD28	3.58	1.177	-.560	-.493
AD29	3.53	1.045	-.411	-.309
AD30	3.60	1.258	-.647	-.548
AD31	3.67	1.162	-.636	-.372
AD32	3.77	1.132	-.778	-.037
RC33	3.97	1.057	-1.018	.575
RC34	3.54	1.144	-.527	-.508
RC35	3.55	1.142	-.547	-.399

Items	Mean	Standard Deviation	Skewness	Kurtosis
RC36	4.07	1.013	-1.130	.969
RC37	3.82	1.116	-.742	-.129
RC38	4.06	.971	-1.029	.796
RC39	4.36	.916	-1.655	2.757
RC40	3.89	1.102	-.940	.333
RSH41	3.56	1.193	-.476	-.666
RSH42	3.58	1.153	-.482	-.574
RSH43	3.25	1.308	-.217	-1.066
RSH44	3.72	1.169	-.687	-.343
RSH45	3.52	1.234	-.466	-.794
RSH46	3.35	1.288	-.341	-.944
RSH47	3.70	1.180	-.596	-.544
RSH48	3.97	1.182	-.979	.013
MI1	3.84	.899	-.556	.247
MI2	3.50	1.025	-.381	-.282
MI3	3.52	1.003	-.256	-.421
MI4	3.62	1.071	-.586	-.082
MI5	4.09	.982	-1.151	1.248
MI6	3.51	1.088	-.575	-.137
MI7	3.93	.915	-.697	.291
MI8	3.86	1.021	-.756	.210
WB9	3.55	1.132	-.574	-.297
WB10	3.63	1.127	-.710	-.130
WB11	3.32	1.230	-.363	-.761
WB12	3.38	1.249	-.376	-.811
WB13	3.28	1.230	-.271	-.811
WB14	2.52	1.300	.409	-.943
WB15	2.66	1.252	.224	-.958
WB16	2.98	1.160	.007	-.680
R17	3.60	1.029	-.532	-.125
R18	3.72	1.010	-.509	-.248
R19	3.83	1.002	-.722	.197
R20	3.94	1.036	-.785	.031
R21	3.72	1.026	-.563	-.145
R22	3.50	1.112	-.403	-.540

Items	Mean	Standard Deviation	Skewness	Kurtosis
R23	3.71	.978	-.553	.093
R24	3.34	1.051	-.363	-.212