Resilience, Adolescents and Outdoor Education:

Is Resilience Context Specific?

By

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DECLARATION

I, Casie-Anne Chalman, declare that the PhD thesis entitled Resilience, Adolescents and Outdoor Education: Is resilience context specific?, is no more than 100,000 words in length, including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

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ABSTRACT

This exploratory study investigated the impact of participation in a three-week journey style outdoor education program upon levels of resilience attributes and coping skills of adolescents. Globalisation and modernisation has increased the social burdens of the 21st century and amplifies pressures to conform to unrealistic expectations in society, resulting in negative impacts on young people's mental health and well-being. These life stressors, along with the excessive amount of time that young people spend using technology, is impacting their development and causing young people to experience increased amounts of psychological distress.

In order to manage these stressors, young people often require the development of adaptive coping skills and resilience attributes. Schools can assist their students by supporting the development of resilience attributes and coping skills which are crucial for the future success of young people, to thrive, cope with adversity, and live at an optimal level of human functioning.

Outdoor education programs are regularly delivered by schools to students worldwide as an effective method to facilitate the development and enrichment of personal and social attributes. However, this field is undermined by ad hoc theory and limited research that supports the ability to enhance levels of resilience and coping skills through outdoor education programs with adolescents in mainstream school settings.

The purpose of this longitudinal study was to investigate the effects of an extended journey style outdoor education program on levels of resilience

attributes and coping skills with adolescents. Specifically, the study used a mixed method approach to investigate if the resilience attributes and coping skills were context specific to the setting in which they were developed. The research is framed around particular theories including experiential learning, transactional theory, optimal arousal theory of play, the adventure experience paradigm theory, developmental theory and behaviouristic theories.

This research examined two groups of Year 10 boys who were aged between 14 and 17 years (N = 111). The program group (n = 69), who participated in an extended journey-style outdoor education program, and the control group (n = 42), who did not participate in any outdoor education programs, completed the same survey measures. To identify which particular attributes of resilience and coping that were strengthened and developed through participation in the three-week program, both groups answered the Resilience Scale and the Brief COPE scale questionnaires within a similar timeframe.

Post-positivist theory was used to analyse the quantitative data, and constructivist theory was used to analyse the qualitative data. The quantitative results revealed that the program group reported higher scores of resilience and resilience attributes compared with the control group following participation in the outdoor education program. Repeated measures t-tests showed significant increases in Overall Resilience and the Existential Aloneness, Perseverance and Purposeful Life subscales. A mixed-design analysis of variance model (ANOVA) revealed a main effect for group and Self-Reliance, F (1, 109) = 7.31, p = .008, and an interaction effect for both time and group was also found for Overall Resilience, F (1, 109) = 3.86, p = .043 and Existential Aloneness, F (1, 109) 9.40,

p = .003. Compared to the control group, the program group showed reductions in coping skills that have the potential to undermine well-being in youth, such as Substance Use and Behavioural Disengagement, while increasing in adaptive coping skills such as Active Coping, and Planning after the program.

The qualitative phase of the research addressed the question of whether the resilience attributes and coping skills developed during the program were transferred and drawn upon by the participants in their lives back at school six-months after the program. Qualitative data was collected through two means; observation data, and small group semi-structured interviews. The researcher conducted field observations of one group's experience during the three-week program. The observation data provided an insight into the goals and activities of the program and helped to inform the design of the semi-structured interview guides. Small group semi-structured interviews were conducted with the program group (n = 18) immediately after completion of the outdoor education program. Follow-up semi-structured interviews were then conducted with the same 18 participants six-months after the program.

Semi-structured interviews conducted immediately after completion of the program highlighted that participants increased their capacity to demonstrate Overall Resilience, as well as Self-Reliance and Independence, Mental Strength, Determination, and various Developmental Tasks. The students also reported developing positive relationships with their peers, leaders, and the natural environment. An awareness and increased levels of appreciation was shown towards their relationships with family members and technology. A range of coping skills were also developed and applied by the boys during the program,

including Putting Things into Perspective; Removing Oneself from the Stressor; Ability to Accept Social Support; Addressing the Issue; Chunking; Coming to Terms with Difficulties; Cognitive Reframing and Applying Positive Thinking; Distraction and Avoidance. Thematic analysis of researcher observations and both sets of semi-structured interview responses revealed three main themes that impacted the development and transference of resilience attributes and coping skills during and after the program. These themes included the program design, the group leader and the learner. The findings showed that most participants struggled to make links between the different contexts of learning. Some of the attributes and skills developed did transfer; however, a common finding was that most participants felt their learnings had dissipated in the six months after the program.

This research supports the notion that outdoor education programs are an effective method to develop resilience attributes and coping skills in young people, however, for the transfer of learning to occur in other contexts, it is recommended that practitioners re-assess their intervention's program design and implement more strategies to improve the transfer of learning. Overall, the findings of the thesis are discussed in terms of the development and refinement of program design of extended outdoor education programs which aim to foster the transference of resilience and positive coping skills into other contexts. Future research directions and implications of the results in relation to professional practices associated with the development of resilience and adaptive coping skills through outdoor education programs are also presented.

Keywords: *Outdoor education; Adolescents; Resilience; Stress; Coping.*

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Firstly, I would like to acknowledge the outstanding bunch of young men, the schools and the outdoor education company that graciously agreed to participate in my research. Without you, this research would not have been possible.

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Thirdly, to my family and dearest friends. I love you dearly. Your support and unwavering belief in my ability means the absolute world to me. I would especially like to thank my Mother and Father. Your continual support and unconditional love throughout my lifetime is the most precious gift.

Lastly, but especially not least, I would love to acknowledge my amazing supervisors; Dr Peter Burridge and Dr Anthony Watt. I will be eternally grateful for your high expectations, commitment, time, valuable constructive feedback, patience, support and wisdom.

DEDICATION

To all the individuals and families that have been affected by mental illness: It is a difficult road. I feel your pain and suffering.

To the youth of today: You are the reason for conducting this research. There is hope and a better way. It is my vision to help young people develop the skills and knowledge to assist them in navigating the stressors of modern daily life; and to support them to thrive and live happy, fulfilling and purposeful lives.

To my family: You are the most import thing in the world to me. On reflection, I wish that someone specifically taught us effective coping skills to manage life stressors when we were adolescents. Prevention is always better than cure.

Undertaking this research study has been an invaluable learning experience. I have gained an understanding of the complex nature of research involving adolescents, the concept of resilience development and outdoor education. Research involving humans and personal growth has many challenges and has proven to be problematic as these areas of research in their own right are complex, dynamic and multidimensional.

This study has helped me to become constructively critical of not only my own professional practice, values, program design and guidelines but also in examining the professional organisations I have been a practitioner for. The research process has encouraged me to use different theories and practices in the in my own life. The growth of my conceptual understandings, critical thinking and

analytic skills during this process has formed the basis for my recommendations for future practice.

Ironically, throughout this study based on positive adaption, I have been confronted with many personal adversities and struggled with my own mental health issues. It has been a process where I have grown spiritually, emotionally, mentally and physically. Mental illness can be crippling, and it affects every aspect of your life. Unlike a physical ailment, I feel that adverse mental health is still not considered to be a legitimate illness in today's western society. I think that it is time to speak up, to show power and strength through vulnerability, and to remove the stigma attached to mental health, to pave the way for others. Finally, I will leave you with the quote that inspired me and kept me going on this journey:

First, it is a challenge. Secondly, you have to learn to prepare meticulously, for your life may depend on the thoroughness and extent of your planning. You have to get off your tail and spur yourself to get going. You have to leave your comfortable slot and go out where things are rough. You have to push into the background the worry of the less likely hazards and make some bold judgements about the more probable ones.

You learn not to be frightened by fear. You discover what a fine piece of machinery the human body is and that it can take a tremendous amount of stress before it breaks down. You learn to make decisions, and gradually you find you make fewer and fewer mistakes. Your confidence grows, and you discover human resources which are ready to be called upon in time of future crises. You learn

something about human frailties and develop sympathy for those weaker or less competent than yourself; you learn to make a team out of a group of individuals.

Adventurous experiences out-of-doors are perceived to kindle the enthusiasm of the young, to develop their concern for others, for their community and for the environment. Such experiences provide the means of self-discovery, self-expression and enjoyment which are at once both stimulating and fulfilling.

It thus emerges that, for young people and adults alike, outdoor adventure is perceived as a vehicle for building values and ideals, for developing creativity and enterprise, for enhancing a sense of citizenship, and for widening physical and spiritual horizons.

- Lord Hunt of Llanfair Waterdin

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CHAPTER 1: INTRODUCTION TO THE PROBLEM

Change and growth take place when a person has risked themselves and dares to become involved in experimenting with their own life

– Herbert Otto

Figure 1.1. Reflecting on life in the wilderness.

Globalisation and modernisation has increased the social burdens of the 21-century and amplifies pressures to conform to unrealistic expectations in society. Life stressors, excessive amounts of time using technology and the increasing problem of 'information and sensory overload' in this 'digital era' is contributing to young people experiencing increased amounts of psychological distress (Australian Bureau of Statistics, 2012; Barrett, Cooper, & Guajardo, 2014; Hanewald, 2011; Herrman et al., 2011; Sawyer et al., 2012; Statista, 2018b). This modern engagement in information processing and additional stressors is resulting in negative impacts on young people's mental health and

well-being; with statistics revealing that suicide is the leading cause of death in young people in Australia aged 15 to 24 (Australian Institute of Health and Welfare, 2016; Mission Australia, 2016), and one-fifth of Australian adolescent's aged 4 to 17 years report experiencing very high levels of psychological distress (Lawrence et al., 2015). These statistics may be influenced by the 'destigmatisation' of mental health over the past 20 years and the rising number of people recognising mental health issues and seeking help (Rice-Oxley, 2019).

Currently, the existing population of adolescents is the largest recorded in human history (Patton et al., 2016). In 2017 there were over 1.8 billion young people aged between 10-24 years old, making up more than a quarter of the world's population (United Nations Department of Economic and Social Affairs: Population Division, 2017). With this number expected to rise to 2 billion by the year 2032, the Lancet Commission (2016) on adolescent health and well-being proposed that we must take action and invest in the development of adolescents (Patton et al., 2016; Sheehan et al., 2017). The importance of working with youth in a proactive capacity, through health promotion is prevalent worldwide (World Health Organization, 2018). For instance, Ki-moon (2016, p. 2357) posits that "young people are the world's greatest untapped resource" and investing in the health and well-being of adolescents will create immense benefits, not only in mental and physical health but it will also generate high economic returns, especially in low-income countries (Patton et al., 2016; Sawyer et al., 2012; Sheehan et al., 2017).

Whilst there are many different variables that can affect an individual's ability to thrive, cope or adapt to stressful events, building psychological resilience and developing coping skills in young people can be the contributing factors in minimising the risk and severity of adverse mental health conditions developed during adolescence and early adulthood (Durlak & Wells, 1997; Friedli, 2009; Wagnild, 2010). As the World Health Organization (2012a) advocates, there is no health without mental health. Consequently, developing psychological resilience is a fundamental element of mental health and psychological well-being, and is strongly associated with a young person's sense of confidence, happiness, success, productivity and quality of life (Friedli, 2009; Wagnild, 2010).

In addition to young people feeling distressed, it has been argued that young people in developed countries have been 'wrapped in cotton wool' and their inability to apply coping skills in response to stress may be attributed to overprotective parenting. Research into 'helicopter parenting' types indicates that parents who 'overprotect' their children and try to 'safeguard' them from stressors, challenges or feeling pain, may block young people from developing essential life skills and reduce their emotional coping capacity and self-reliance (Grolnick, Kurowski, Dunlap, & Hevey, 2000; Hunt Jr, 2008; Levine, 2006; Marano, 2008; Schiffrin et al., 2013).

In Western culture, we primarily live in a reactive society. Our physical and mental health care system is grounded in a disease-based model. In the past, psychological theories and therapy interventions have used a disease-based model,

which is a problem-focused approach that attempts to address the concerns, diseases, illnesses, maladaptation, or incompetence of an individual, after the issue already exists (Benard, 1991). However, for students to meet the new challenges of the 21st century, different methods than the disease-based approach to mental health are required. There is a vital need for the implementation of proactive, prevention and education programs in school curriculum (Friedli, 2009; World Health Organization, 2009).

An approach to enhancing an individual's psychological resilience is to support them to increase their repertoire of coping strategies. Several studies have indicated that outdoor education interventions are a positive tool to enhance resilience (Hattie, Marsh, Neill, & Richards, 1997; Hayhurst, Hunter, Kafka, & Boyes, 2015; Neill & Dias, 2001) and positive coping skills (Booth, 2015; Yoshino, 2008). The nature of outdoor education programming allows participants to experience challenges through exposure to real and perceived risks that may not be available in classroom settings. However, there is little evidence to indicate that participation in mainstream, school delivered, outdoor education programs enhances resilience and coping skills in young people. What is also unclear is which particular attributes of resilience and coping are strengthened through participation outdoor education programs (Neill, 2001; Neill & Richards, 1998). Furthermore, if these interventions affect an individual's resilience and coping capacities, there is little evidence to indicate whether young people apply these skills in other contexts of their lives.

It is evident that schools play a critical role in supporting young people with emotional and behavioural problems, as young people spend their majority of time in schools and 95.9% of young people in Australia aged 4 to 17 attend the mainstream school education system (Lawrence et al., 2015). Outdoor education programs are increasingly becoming part of school curriculum across the world and have the capacity to be used as a positive intervention for mental health promotion. The potential exposure for schools to proactively foster the development of resilience attributes in young people is huge, as it is expected that there will be over 700,000 students enrolled in Grade 4 to Year 12 in Victorian schools (Australian Bureau of Statistics, 2008b) and that almost half of these students will participate in outdoor programs by the year 2021. Considering this participation rate, school-based outdoor education programs have the capacity to be used as a platform to promote positive mental health, through fostering the development of psychological resilience and coping strategies in young people.

Problem Statement

Limited research has examined the role that mainstream outdoor education interventions play in helping young people to build resilience and coping skills. Furthermore, there is a lack of understanding as to whether the skills developed during these interventions benefit the participants after the program and support the transference of these life skills into other contexts of their lives. A critical question that remains is; ‘is resilience context specific?’

Purpose

The purpose of this study is to investigate if resilience is context specific to the field of outdoor education. The research specifically aims to examine whether students who participated in an extended journey style outdoor education program increased their levels of resilience and coping skills, and to see if they were able to transfer these skills into other contexts of their lives. In addition, how resilience and coping skills can be best developed and transferred to other contexts of learning will be explored. The results of this study aim to provide insights into best practices for outdoor education programs to assist adolescents in becoming more resilient young adults, who have a greater capacity to cope and thrive in difficult circumstances.

Thesis Structure and Chapter Organisation

Images of one outdoor education group's (Group 9) experience are scattered throughout this thesis to provide context of the wilderness environment, the adventurous activities, program challenges and the group during the outdoor education program. This chapter provides an overview and background to the study, and briefly considers the literature. It then describes the problem and purpose of the study and explains the contribution to knowledge expected from this thesis.

Next, Chapter 2 provides a comprehensive review of the literature on adolescence and adolescent development, stress and coping, and unpacks the concept of resilience. This is followed by a review of outdoor education and its

purpose in being used as an intervention for building resilience attributes and coping skills in young people.

Chapter 3 outlines the research methodology for all three phases of this study. It provides a detailed explanation of the aims, research questions, rationale, and theoretical framework. The scope and rigour of the mixed methods approach chosen in this study provides a solid research platform for understanding the role that outdoor education interventions play in building resilience attributes in young people. The next two Chapters present and discuss the results of this study. Chapter 4 provides the quantitative results of Phase I and discusses these results accordingly. This is followed by Chapter 5 that presents and discusses the qualitative results of Phase II and Phase III.

In the final discussion, Chapter 6 commences with a discussion of the key conclusions of the research in relation to the results and provides insights into how resilience and coping can be best supported and developed through participation in outdoor education programs. Responses to the research questions are summarised and that section is followed by a presentation of applied recommendations for practice. The chapter then outlines the strengths and limitations of the research, and implications for future research. Chapter 7 provides closing summaries and conclusions of the research.

Significance of the Study

Considering the statistics and current status of young people's mental health in Australia, taking a proactive approach to help young people develop

psychological resilience and coping skills is critical for assisting youth to gain the skills to help manage their responses to stressors and maintain positive mental health and well-being. Taking a proactive approach to help young people develop psychological resilience and coping skills is important if we are going to assist young people to gain the skills to manage their responses to stressors of modern life and maintain positive mental health and well-being. The current focus of responding to young people once they are in need of support is no longer sufficient (Seligman, 2011).

School-based outdoor education programs have the potential to develop psychological resilience and coping skills (Neill, 2008). Theoretically, these programs can serve as a platform or 'learning playground' whereby participants can practice and experiment with the application of different resilience attributes and coping strategies when immersed in stressful circumstances (Priest & Gass, 2018a; Walsh & Golins, 1976; Yoshino, 2008).

However, there is a lack of research and evidence indicating how effectively resilience can be best developed, enhanced, and transferred into the everyday lives of young people through outdoor education interventions (Ahern, Ark, & Byers, 2008; Neill & Dias, 2001; Neill & Richards, 1998). In addition, the role that coping strategies play in developing resilience through outdoor education programs has been overlooked. Very little research has been conducted on the impact of coping skills in outdoor education programs (Booth, 2015; Yoshino, 2008).

Furthermore, there is a limited number of recent studies that examine the participant perceptions as to whether or not the outcomes and benefits gained in outdoor education programs are maintained (e.g., Buckner et al., 2005; Hayhurst et al., 2015) and are transferred into their daily lives (e.g., Holman & McAvoy, 2005; Sibthorp, 2003). Researchers have emphasised that transferability of resilience attributes and coping skills from outdoor education programs into participants everyday lives warrants further investigation (e.g., Booth, 2015; Neill & Dias, 2001, p.6). Consequently, there is a clear gap and need for ongoing research which can inform program design and practical applications to support the transfer of learning skills developed through outdoor education interventions into other contexts of young people's lives.

The significance of this study can be seen through four major needs: (1) the need to know what psychological resilience attributes and coping skills improve as a result of participating in an outdoor education program; (2) the need to understand the connection between the theories and previous empirical findings of outdoor education, resilience and coping; (3) the need to investigate if the skills developed during outdoor education interventions are transferable into other contexts; and (4) the need to explore the role of outdoor education programming in contributing to fostering the development of psychological resilience and coping skills in young people.

In summary, this thesis offers a substantial theoretical review and empirical analysis of the effects of an extended journey style outdoor education program on levels of resilience and coping skills in adolescent boys. The study

explores the underlying theories, evidence-based research and recommended practices that promote a greater understanding of what and how resilience attributes and coping skills are transferred and used in other contexts. Knowledge gained in this study will enhance the current literature and add to the findings of empirical studies in outdoor education. The findings will provide practical recommendations for practitioners and assist in creating and implementing effective outdoor education program designs that foster the development of resilience and coping skills. In addition, this will open the field of study to further investigation and exploration into the outcomes of this research.

CHAPTER 2: LITERATURE REVIEW

In the middle of difficulty lies opportunity – Albert Einstein

Figure 2.1. Helping one another through a river crossing.

This study aimed to investigate whether students who participated in an extended journey style outdoor education program increased their levels of resilience and coping skills, and to see if they were able to transfer these skills into other contexts of their lives. This chapter provides a synopsis of the relevant theory and literature surrounding adolescence, resilience, coping skills and outdoor education in relation to this study.

The chapter begins by providing definitions of the key concepts. This leads into the second section that presents a brief overview of literature pertaining to adolescent development. The third part explores the concept and importance of resilience and coping for adolescents, and the fourth section examines the role of outdoor education as a tool for resilience development. The literature review

finishes by bringing together these four core concepts to provide an understanding of how outdoor education has the potential to support the development of resilience and coping skills in young people.

Definition of Terms

Adolescence

Adolescence is defined as the period in which a young person transitions from childhood to adulthood (Furlong, 2009). In this study, adolescents are referred to as young people.

Stress and Challenge

The terms ‘stress’, ‘stressors’, ‘challenge’ and ‘challenging experiences’ are used interchangeably in this study. This was deemed appropriate as ‘challenge’ is a universal construct used in the context of outdoor education, as well as ‘challenge’ being regarded as part of the stress appraisals process (Lazarus & Folkman, 1984). In addition, the terms ‘program challenges’ relate specifically to the challenges that are included as part of the program design and curriculum of the outdoor education program. Whereas, the term ‘difficult’ or ‘difficulty’ relate specifically to the perceived level of ‘stress’ or ‘challenge’.

Psychological Resilience

“Resilience describes a psychological quality that allows a person to cope with, and respond effectively to, life stressors” (Neill & Dias, 2001, p. 5).

Coping

Conceptually, coping is defined as the constant changing cognitive and behavioural efforts that an individual takes to manage external and/or internal demands (Frydenberg, 2010; Lazarus & Folkman, 1984).

Outdoor Education Program

An outdoor education program is an 'educational design' in which participants are part of a facilitated small group that is exposed to 'perceived or real' risk, challenge and/or adventure in a natural environment. The intentions of programs generally focus on the growth of personal and interpersonal skills. In the context of this research, an outdoor education program refers to an extended journey style outdoor education program which is; (a) the duration of two to four weeks; (b) located in a semi-wilderness setting; (c) consists of a small groups (less than 16 participants and 3 staff); (d) daily and intense interactions within a small group setting requiring problem-solving and decision making; (e) gradual exposure to a range of mentally and/or physically challenging adventure activities, such as hiking steep mountains or whitewater rafting down Class III rapids; and (g) the participants are engaged in a 'journey' where they transition through locations and campsites to reach their final destination (Hattie et al., 1997).

Understanding Adolescence

In the context of western culture and society, adolescence refers to the period of human development that spans between childhood and adulthood (Furlong, 2009). This stage of development occurs in the second decade of a

young person's life which coincides with the stages of puberty and continues as they mature and reach their early twenties (Schunk & Meece, 2006; UNICEF, 2011). They form an immensely complex group of people as they experience the youth to young adult transition. As they move through the biologically driven process of puberty; physical, emotional, social, cognitive, and behavioural changes occur in complex ways (Sawyer et al., 2012). Young people experience a range of changes during adolescence such as brain development and connections of new neural pathways (Johnson, S, Blum, & Giedd, 2009; UNICEF, 2011). Parts of the brain that start to mature during this period include areas that are critical for higher-order processes and executive functioning, such as memory, decision making, planning and impulse control (Anderson, Anderson, Northam, Jacobs, & Catroppa, 2001; Johnson, S, Blum, & Giedd, 2009).

Broader changes during puberty include growth spurts, sexual maturation and hormonal changes. These processes are different for each person, as they are not only experiencing the physical changes associated with adolescence, but also the cultural, emotional and social factors that will influence ideas of how they view themselves, how they view their place in the world and their interpretation of how others perceived them (Cole, Vindurampulle, & Vindurampulle, 2006).

No longer children and not yet adults, adolescents start to move away from the security, comfort, and influence of their parents or primary caregivers and move towards taking ownership of their own choices, decisions and abilities (Kroger, 2004). As they strive to become more independent and explore their

place in society, they are progressively confronted with an array of new life experiences.

In early research of adolescent development, the founder of adolescent psychology, Granville Stanley Hall (1904) defined adolescence as a period of ‘storm and stress’ (Lerner & Steinberg, 2009, p. 1). This deficit view of adolescent development concluded that young people, in general, lacked the ability and the necessary skills to function as effectively as adults in an adult society and that they are unable to make logical, rational decisions under pressure due to incomplete brain development (Arnett, 1999; Cole et al., 2006). Arnett (1999) suggests that while emotional distress is more likely in adolescence than any other period of the lifespan, not everyone experiences this emotional turmoil.

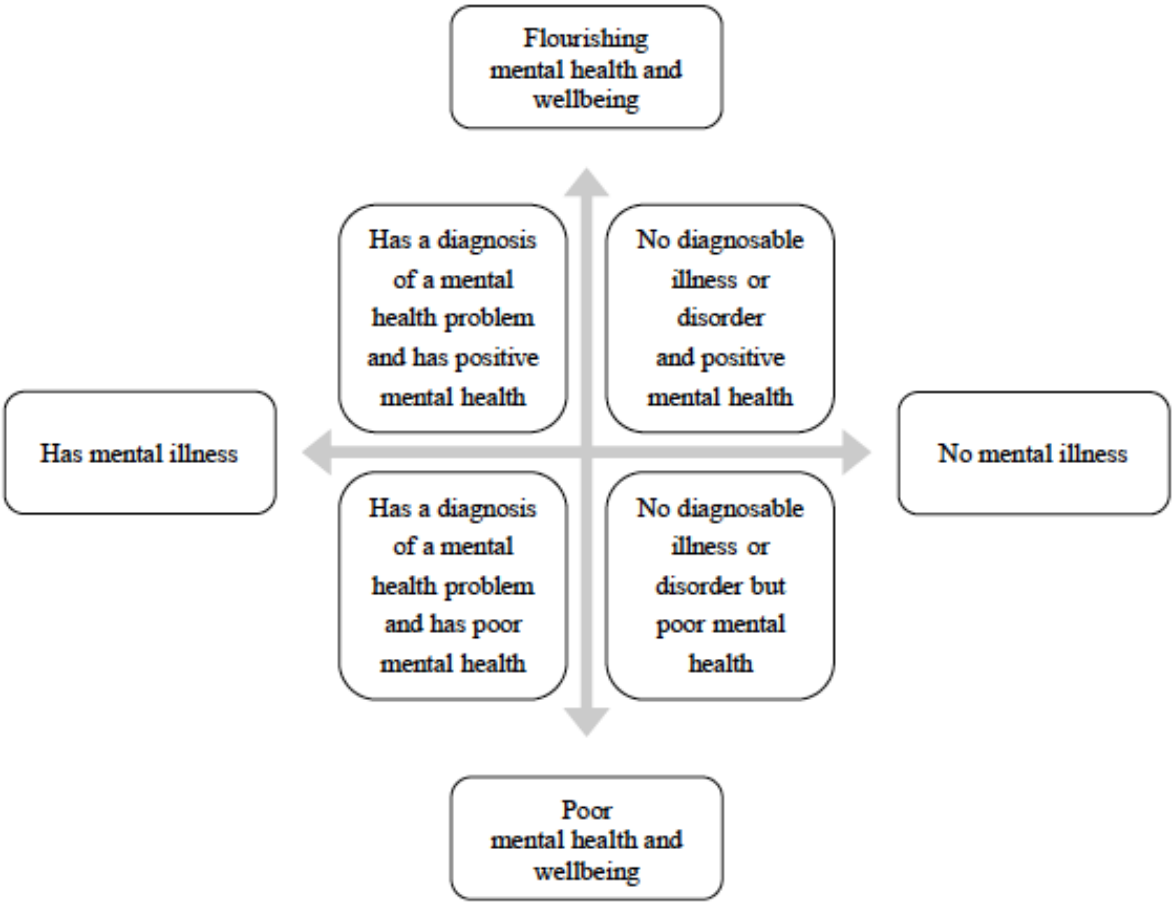
This deficit standpoint may have been influenced by the early research which demonstrated that the majority of early studies on adolescent development suggest that the public agreed with this perception, that adolescence is a time of ‘storm and stress’ (Arnett, 1999; Lerner & Steinberg, 2009). For example, Buchanan et al. (1990, p. 372) reported that the majority of parents and teachers in their study believed adolescence to be a difficult time of life, agreeing with statements like "early adolescence is a difficult time of life for children and their parents/teachers”. However, it is now evident that this is not a period of ‘storm and stress’ but one of physical and social development. Even though adolescence is a period of change and has the potential for some youth to experience turmoil, it is also a period of opportunity for positive growth (Coulson, 2017; UNICEF, 2011).

Even when faced with the challenges of maturing through adolescence, many young people transition through this developmental period with few issues, becoming competent, adapted and well-functioning adults of society, who operate at an optimal level of human functioning. In other words, they have the capacity to manage stress and live out their daily lives without feeling high levels of anxiety (Jaffe, 1998). Resilient Youth Australia collected data from over 90,000 Australian youth enrolled in Year 3 to Year 12 from over 400 different communities around the country (Resilient Youth Australia as cited in Coulson, 2017). The data revealed that 43% of girls and 40% of boys have good to high levels of resilience and emotional well-being (Coulson, 2017). These numbers provide evidence that on average approximately 40% of youth in Australia are thriving, managing well with challenges and operating at optimal levels. This also illustrates that adolescents do have the capacity to be capable and powerful agents of personal change (Sawyer et al., 2012). On the contrary, the statistics also indicated that more than half of our youth need support to develop the skills required to cope with life's challenges.

Keyes' (2006) research that aimed to determine whether young people between the ages of 12 and 18 were flourishing revealed a correlation between the age and the mental health of the participants ($r = -.07$; $p < .02$). This demonstrated that the mental health of the participants declined the older they were. For instance, people aged between 12–14 demonstrated higher scores in flourishing, while young people aged 15–18 demonstrated moderate mental health. The level of optimal human functioning varies for each individual depending on their

culture, age, experience, skills, situation and education. However, the greater the young person's capacity to understand change and adapt to the adversities they encounter, the more likely they are to experience positive effects in almost all areas of their life, now and in the future (Constantine & Derald Wing, 2006).

As Figure 2.2 indicates, mental health and well-being is not the same as mental illness. The four quadrants in the dual axis model demonstrate that individuals can have no mental illness but still have poor mental health and well-being (bottom-right quadrant) and likewise that an individual can have a mental illness but still have positive mental health and well-being (top-left quadrant) (Tudor, 1996). If an individual is flourishing, this means that they are living within an optimal range of human functioning, that includes growth, productivity, purpose, psychological flexibility and adaptability (Fredrickson & Losada, 2005). The model portrays that everyone can improve their mental well-being whether they have a mental health issue or not. It views mental health in positive terms rather than by the absence of mental illness (Fredrickson & Losada, 2005; Keyes, 2006).



Note. Adapted from Tudor (1996).

Figure 2.2. The mental health dual axis model.

Along with individual developmental changes, new life experiences and responsibilities, comes the accompanying life hurdles that young people will need to overcome. For example, as young people commence adolescence, they will experience the challenging transition from education in a primary school setting, into a secondary school setting. This transition occurs during an age where many young people's well-being and resilience declines significantly. Australian research is consistent with other global data that indicates that a young person's

well-being peaks at around 8 years of age when they are in primary school and decreases consistently through until the age of 16-17 years when they are in secondary school (Australian Bureau of Statistics, 2016; Bruckauf, 2017; Commissioner for Children and Young People Western Australia, 2015). This finding by 'Resilient Youth Australia', indicates the need to promote and continually develop a young person's well-being and resilience through their secondary school years (Resilient Youth Australia as cited in Coulson, 2017).

Adolescence has always been a period of personal change and development, where youth are confronted with many different types of challenges at any one point. However, growing up in the 21st century adds another layer of complexity (Sawyer et al., 2012). Modern technology has resulted in the young people of today growing up in the digital and information age. The digital era has influenced the way youth learn, process information, interact, and develop relationships. Young people now use social media, accessed on the world wide web, as a virtual platform to communicate, access and share information 24 hours a day. This new medium of connecting has created a new generation of people whose identities are defined by their online connections and what they produce online (Dye, 2007).

'Facebook' is an example of an online platform that is one of the leading online social networking sites and has over 2.2 billion users worldwide. Of these 2.2 billion users are 44.15 million young people aged between 13-24 years old (Statista, 2018a, 2018b). This virtual world can directly impact youth development and increase the likelihood of external inputs and stressors, which

can be driven by social pressures and lead to psychological turmoil. Some examples include access to inappropriate adult information, around the clock exposure to social interaction and the increased potential for experiencing online bullying or peer pressure (Barrett et al., 2014). The new challenges that come along with the digital age may require different coping strategies to manage or overcome these stressors, compared to coping strategies that may have been useful ten years ago, when transitioning through adolescence (Sawyer et al., 2012). In addition to the pressures of the digital era, other social changes have occurred, providing a range of challenges for adolescents to cope with. For example, the rise of such issues as divorce or unemployment of parents, alcohol and substance abuse, internet or other addictions, and other random traumatic events (Australian Bureau of Statistics, 2012; Hanewald, 2011; Herrman et al., 2011; Humphrey, 2002).

Given all the pressures and challenges that young people face, it is understandable that adolescence is a period which is associated with an increased risk of mental health concerns. For many people, mental health issues come to light during adolescence (UNICEF, 2011). An increased number of studies worldwide are finding that more young people are suffering from mental health issues (Australian Bureau of Statistics, 2007, 2016; Bruckauf, 2017; Commissioner for Children and Young People Western Australia, 2015; UNICEF, 2011). During 2012-2016, one in four young Australian's aged between 15 and 19 met the criteria for having a serious mental illness (Bullot, Cave, Fildes, Hall, & Plummer, 2017; Mission Australia, 2016). This is equivalent to more than

560,000 youth with mental disorders, and of these young people, 278,000 reported having anxiety disorders, 112,000 had major depressive disorders, and 83,600 had conduct disorders (Lawrence et al., 2015). The problem continues to increase with the proportion of those indicating mental health as a national concern rose from 14.9% in 2015 to 33.7% in 2017 (Bullot et al., 2017). If these conditions are left untreated or unsupported, mental health disorders can lead down the path to more critical problems including suicide.

Worldwide, road traffic injuries were the leading cause of death in adolescents (World Health Organization, 2018). However, according to the Australian Institute of Health and Welfare (2016) suicide is the leading cause of death in youth aged between 15 and 24 years. These statistics highlight the importance of acknowledging the needs of young people and supporting their capacity to learn coping skills in order to manage and adapt to adversity and hardship when it occurs.

In addition, adolescents are at greater risk of experiencing mental health disorders compared to adults (Australian Bureau of Statistics, 2016; Australian Institute of Health and Welfare, 2016; Bullot et al., 2017). Mental health problems in young people often stem from having low self-esteem as well as the increased social pressures of the 21st century to conform to unrealistic expectations (UNICEF, 2011). There are many contributing factors that affect mental health. However, the main factors affecting young people include violence, abuse, neglect, and bullying (UNICEF, 2011). These sorts of hardships can often lead to feelings of vulnerability and instability, resulting in an increased likelihood of

poor decision-making, unhealthy risk-taking behaviour and a susceptibility to further problems (Ahern et al., 2008; Hanewald, 2011). Factors such as peer pressure and trying to 'show off' in front of others or being under the influence of intoxicants (e.g., drugs and alcohol) are examples of factors that can lead to poor decision making. Decision making is crucial during adolescence, with the potential for poor decisions and momentary actions resulting in serious unwanted consequences that may impact the rest of their lives (e.g., teen pregnancy, underage drinking, permanent mental or physical injury, breaking the law, dropping out of school, juvenile delinquency).

As young people mature into later adolescence, they develop greater independence and undertake additional responsibilities. The acquisition of more control over decision making promotes a greater sense of freedom. For example, in society, this is illustrated by having the opportunity to obtain a Learner's Driver's Licence or gain paid employment. However, even though young people's expectations and responsibilities in society may increase, young people may not have had the necessary life experiences or opportunities to develop the coping skills required to manage the challenges of adult life. General life hurdles that young people may endure range from seemingly mundane challenges of adult life, such as saving money, budgeting and paying for acquired phone bills, to more complex hurdles, such as maintaining employment or dealing with relationship conflict. An inability for young people to cope or manage challenges of adult life may be attributed to the fact that they may have;

- experienced 'over-controlling' parents or 'helicopter parenting';

- not been taught effective coping skills required to overcome challenges;
- not had the opportunities to practice and apply coping skills in various contexts;
- not had the guidance and opportunities for self-reflection and personal growth; or
- not been exposed to challenges with that level of difficulty before (Coulson, 2017; Marano, 2008; Schiffrin et al., 2013).

Some would argue that 'wrapping kids in cotton wool' by not exposing them to challenges or allowing for healthy decision making around risk, could have an adverse effect on their capacity to positively adapt to challenging situations (Booth, 2015; Coulson, 2017; Schiffrin et al., 2013).

To avoid poor decision making and increase a young person's capacity to cope with challenges and adversity, it is important to assist adolescents to develop positive human characteristics, such as a positive sense of self-agency, self-esteem, self-efficacy and resilience. For instance, a young person with a positive personal agency would have an increased capacity to originate and direct actions for a given purpose (Zimmerman & Cleary, 2006, p. 45). Youth that hold a positive sense of agency are more resilient and better able to negotiate activities that are determined as high-risk activities that they may be exposed to, such as, alcohol, illicit drug use, smoking and early sexual activity (Bandura, 2006).

Developing a positive sense of agency and healthy decision-making skills coincide with the adolescent stage of cognitive development where individuals

start to develop formal operational thinking (Piaget, 1964, 1972). This occurs later in adolescence and enables them to think abstractly, allowing for self-reflection and to be able to predict possible outcomes of different types of behaviour in various contexts (Jaffe, 1998; Piaget, 1964, 1972; UNICEF, 2011). Increasing a young person's personal agency gives them an increased control of their decisions and actions, which allows them to become agents for change and in control of their own future (Bandura, 1977, 1986).

Understanding Stress and Coping

The Concept of Stress

Previously, psychological stress has been defined in two ways; one approach defines stress an environmental stimulus (stressor), and the other defines stress as "the nonspecific response of the body to any demand made upon it" (Selye, 1974, p. 137). However, Lazarus (2006) later provided an alternative to the 'stimulus' and 'response' definitions of psychological stress by combining the two to form a relational approach of viewing stress that acknowledges the direct relationship between the person (response) and the environment (stressor).

Selye (1975) categorises two types of stress; eustress and distress. In Selye's (1976) theory, he indicates that 'stress' is the initial response to the stressor; however, the eustress and distress are the effects of the stressor. Eustress, also known as positive stress, is regarded as a healthy form of stress which can be used to motivate participants to apply coping mechanisms and test their problem-solving capabilities (Priest & Gass, 2018b; Selye, 1974, 1976). Whereas distress, also known as negative stress, can cause adverse responses, such as anxiety,

overwhelm or the inability to adapt (Selye, 1975). According to the transactional perspective of stress and coping, stress is the relationship between the individual and the environment in which one perceives the adaptive demands of the stress as being either difficult but achievable or exceeding their perceived ability to apply coping mechanisms to meet the demands of the stressor (Neill, 2008).

The Concept of Coping

Coping is a multidimensional phenomenon, which includes an individual demonstrating a variety of strategies or behavioural responses as a reaction to challenge or adversity (Duhachek, 2005). Coping and resilience have been used interchangeably in the literature (Markstrom, Marshall, & Tryon, 2000), with some researchers advocating that coping, stress, competence, and resilience should be viewed as the one construct (Haggerty, Sherrod, Garmezy, & Rutter, 1997; Masten & Obradović, 2006). However, while resilience and coping are similar and interrelated, they should be identified as a separate construct.

Coping is a dynamic process and refers to the constantly changing cognitive and behavioural efforts of an individual to manage external or internal demands, which are dependent on their levels of perceived stress (Frydenberg, 2010; Lazarus & Folkman, 1984). Coping occurs in response to a perceived challenging situation or anticipation of future challenging events. Similarly, adaption refers to the actions that enhance one's ability to cope with external stressors (Brooks, 2003). The coping response occurs before the individual's resilience capacity is demonstrated. Therefore, common sense seems to dictate that for resilience to be demonstrated, stressor/s must be present as an individual's

adaptive capacity only becomes apparent in the face of hardship or adversity. This statement is in line with Toland and Carrigan (2011) who states that "individuals are not considered to have displayed resilience if there has never been a significant threat to their development" (p. 97).

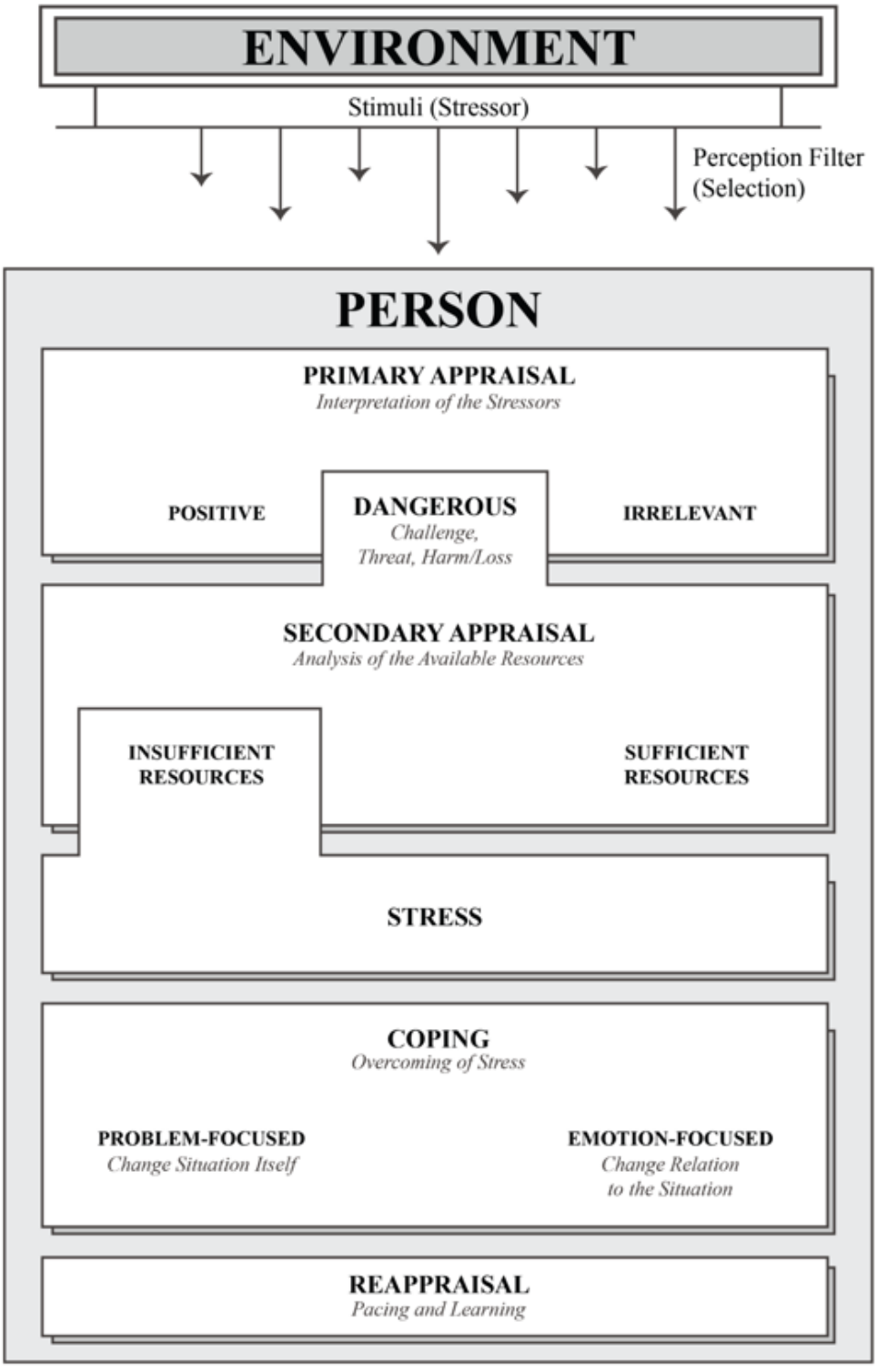
A study by Markstrom et al. (2000) demonstrates how resilience and coping are interrelated. For example, the findings of the study showed that coping mechanisms such as wishful thinking and avoidance were negatively linked to resilience. Conversely, those who applied direct, problem-solving mechanisms increased their likelihood of responding positively to difficult situations.

Theoretical Underpinnings of Stress and Coping.

Exploring theoretical constructs of coping first began with Lazarus in the 1960's. His theories remain relevant in coping literature (Carver, 1997; Hulbert-Williams, Morrison, Wilkinson, & Neal, 2013; Lazarus, 1966; Matthews & Zeidner, 2003; Swanson, 2000; Wong, Reker, & Peacock, 2006). Lazarus (1984) developed the transactional model of stress and coping which is an appraisal-based model that describes the subjective processes of an individual's cognitive appraisals and coping responses (Lazarus & Folkman, 1987). This model presents coping as an interactive process which is associated with three dimensions'; (a) primary appraisal, whereby a person perceives a threat; (b) secondary appraisal, which is the consideration of the appropriate action; and (c) coping, which is when the person carries out that action (Carver, Scheier, & Weintraub, 1989; Lazarus, 1984; Lazarus & Folkman, 1987; Wong et al., 2006) (see Figure *2.3*). This model details coping to be a dynamic system which changes from moment to

moment. The transactions within this model depend on the effect that the environment or external stressors have on the individual. The impact of the environment is then mediated by an individual's repeated appraisal (assessment) of the challenge and their coping responses to the stressor. These responses to stress can be physiological, emotional, cognitive, behavioural and/or physical.

As Figure *2.3* demonstrates, there are three types of primary appraisal: (1) positive, (2) dangerous, and (3) irrelevant. If an individual's interaction with the environment and stressor is perceived to be positive, benign-positive appraisals occur. These appraisals are characterised by pleasurable emotions such as joy, love, happiness, exhilaration, or peacefulness (Lazarus & Folkman, 1984). Dangerous or 'stressful' appraisals include harm/loss, threat and challenge. Harm and loss can be physical, social, financial or psychological and implies the 'damage' to an individual has already occurred (Lazarus & Folkman, 1984). For example, damage to self-esteem or social embarrassment. Whereas, a 'threat' is when the 'harm or loss' is anticipated but has not yet occurred. Threats tend to initiate negative emotions such as anxiety, fear and anger. On the contrary, challenge appraisals are seen to focus on the gain or potential growth of an experience. Challenge may be expressed as pleasurable emotions such as excitement, motivation and exhilaration. On the other hand, if the environment has no implication on an individual's well-being, their appraisal may deem the stressor as irrelevant. Irrelevance is where there is no value, need, commitment or anything to be lost or gain in their transaction with the stressor (Lazarus & Folkman, 1984).



Note. Adapted from Lazarus & Folkman (1984, 1987)

Figure 2.3. Lazarus's transactional model of stress and coping.

Types of coping.

Lazarus's (1984) model as summarised in Figure *2.3* demonstrates the need for young people to be able to draw upon and utilise sufficient internal and/or external resources or assets (e.g., personal motivation, coping skills, support from family) in order to minimise stress when they are confronted with challenges or adversity. The model clearly represents two types of coping; problem-focused and emotion-focused coping. These coping skills are required for a person to change the situation or perspective, to be able to overcome the stressor/s. Lazarus and Folkman (1984) suggests that coping responses should not be labelled adaptive or maladaptive, or seen as inherently good or bad. Instead, coping skills should be viewed as either emotion-focused or problem-focused coping skills. In addition to these two broad types of coping, researchers have added unproductive as another type of coping (Carver et al., 1989; Fanshawe & Burnett, 1991). Unproductive coping refers to how appropriate the application of the coping skills is for the specific stressor (Carver et al., 1989).

If a challenging situation is perceived as unchangeable, such as experiencing grief from a death in the family, emotion-focused coping strategies are more likely to be appropriate (Frydenberg, 2008). Whereas, if an individual perceives they can alter the situation, they are more likely to apply problem-focused coping strategies to confront the problem, such as acquiring more information or looking for alternative solutions (Breinbauer & Maddaleno, 2005).

Emotion-focused coping is typically based around an emotional response to a challenge or stressor, such as fear, anxiety, embarrassment, excitement or

frustration. This type of coping naturally involves the person trying to lower the effect of the negative emotional response due to the challenge or stress. Breinbauer and Maddaleno (2005) suggests that emotion-focused coping strategies, such as choosing to ignore a problem, are only effective in the short term, while problem-focused coping strategies are more effective for long-term solutions. Some emotion-focused coping strategies are seen to be proactive, such as venting or seeking social support, whilst other strategies such as avoidance or denial are seen as reactive (Carver et al., 1993).

On the contrary, problem-focused coping typically tackles the causes of challenge or stress in practical ways and aims to deal with the challenge or reduce the stress. Problem-focused coping normally comprises practical strategies such as problem-solving or time management. These types of coping strategies are considered as engaging coping strategies, as the actions involve a person confronting the problem and adopting active coping skills, such as seeking support from counsellor or family and friends (Breinbauer & Maddaleno, 2005). For example, a study by Lee et al. (2017) examined coping responses in high school students from Year 7 to Year 12 in South Korea (N =1446). Researchers used three different scales; the Risk Factors Scale (Kim, 2004) to measure risk factors of individuals; the Korean version (Kim, 2001) of the Coping Inventory for Stress Situations (Endler & Parker, 1990) to measure typical patterns of coping strategies for stressful situations; and Kim (2004) combined a self-report measure from other scales to measure school adaptability levels. While the study

showed strength by using a large sample size of adolescents, using two self-report measures that were newly derived for Korean populations constituted a limitation.

Nevertheless, based on their results, participants were classified into four groups. If a participant showed high adaption and high risk, they were classified as to be in the resilient group (Lee et al., 2017). If the group showed high adaption but low risk, they were classified as competent. Whereas, if the participant scored high risk levels, but low adaption, they were classified to be in the struggling group. Finally, if the participant demonstrated low risk and low adaption, they were classified as the vulnerable group. Interestingly, only 214 (14.8%) of the participants were classified to be in the resilient group. Whereas, 747 students (51.7%) were classified into either the struggling group (n = 358, 24.8%) or the vulnerable group (n = 389, 26.9%). Results from a descriptive discriminant analysis revealed that both problem-focused and emotion-focused coping skills were used simultaneously in the resilient group. Whereas, the competent group used predominantly only problem-focused coping skills and the struggling group mainly used emotion-focused coping strategies. One of the most interesting results is that the vulnerable group used neither emotion-focused or problem-focused coping strategies. Due to the fact that both the competent and resilient groups used both problem-focused coping strategies, this finding reinforces that problem-focused copings skills are very useful in overcoming challenge or adversity.

Figure *2.3* also shows the need for self-reflection and continual assessment to gain awareness and learning in order to apply the skills in future challenging

situations. Once the emotion-focused or problem-focused coping strategies have been implemented, the individual is required to evaluate the strategies as to whether they are successful in mitigating the challenge. If the strategy is unsuccessful, a reappraisal is required, and the flow of the model starts again. An example may be a young person feeling stress relating to the submission of an assignment for their science subject at school. Their initial appraisal may result in an understanding that there is not any direct danger or harm to self. However, they may find they are exposed to ‘loss', such as the loss of grade's due to the quality of their assignment. This may lead to a reduction of their personal pride, self-esteem or they may fail the subject. To avoid stress and overcome the challenge, a secondary appraisal of the situation may involve drawing on their required resources. This may include gaining support from a classmate or science tutor or applying effective coping mechanisms, such as problem-solving skills or time management to complete the assignment to a satisfactory standard. It is important to note that appraisals can be either conscious or unconscious reactions to the stressor and the reactions can be manipulated by context, time and personal factors (Hulbert-Williams et al., 2013; Schwarzer & Knoll, 2003).

Understanding the Concept of Resilience

The concept of resilience is widely investigated and applied across various disciplines including engineering, ecology, education, economics, psychology, psychiatry, sociology, and biological disciplines (Herrman et al., 2011, p. 259; Windle, 2011). The diversity of research areas and theories of this

multidimensional construct has caused confusion and difficulty in researchers agreeing on a clear definition.

Resilience researchers in the domain of psychology have provided significant variations in definitions over the past four decades, which has created further confusion and misunderstandings of the key concepts (Masten, 2001, 2012; Richardson, 2002; Werner & Smith, 1982). However, the commonality between the definitions of resilience in all fields of study is that resilience is the capacity to cope with stress (Neill & Dias, 2001).

The American Psychological Association (2011) defines resilience as the "process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress- such as family and relationship problems, serious health problems or workplace and financial stressors. It means 'bouncing back' from difficult experiences" (p. 1). This understanding of resilience and the idea of 'bouncing back' can etymologically be traced back to the Latin words *resilio, resilire, resilui*; meaning *to leap back, spring back, rebound, recoil or retreat* (Lewis, 1890). This foundational understanding has informed the commonly used, simplistic description of resilience as one's ability to 'bounce back' or 'rebound' from stress or adversity (Bounce Back, 2017; Netuveli, Wiggins, Montgomery, Hildon, & Blane, 2008; B. W. Smith, Tooley, Christopher, & Kay, 2010; Spangler, Koesten, Fox, & Radel, 2012; Tugade & Fredrickson, 2004; West, 2012). However, while this simple explanation of resilience addresses the critical aspect of positive adaption to stress, the definition fails to encompass the

interaction between the individual and their environment throughout the process of adaption.

Risk and Protective Factors

Within the domain of building resilience, it is essential to understand the factors that may hinder (risk factors) or strengthen (protective factors) an individual's capacity for adaption. Risk and protective factors are the individual, family and environmental characteristics that may contribute negatively or positively to an individual's ability for optimal human functioning. These variables include personal, behavioural, biomedical, genetic, environmental and demographic factors (Australian Institute of Health and Welfare, 2011; Banatao, 2011; Herrman et al., 2011). Starting from birth, an individual's risk and protective factors are moderated by the environment in which they are immersed.

Rarely occurring in isolation, risk factors are associated with an increased probability of negative outcomes, whereas protective factors or promotive factors are associated with the likelihood of positive outcomes (Barrett et al., 2014; Masten, 2001; O'Dougherty Wright & Masten, 2015; World Health Organization, 2012b). As risk factors accumulate (also referred to as cumulative risk factors) in people's lives their ability to demonstrate resilience becomes less likely and negative outcomes increase (Evans, Li, & Whipple, 2013; Obradovic, Shaffer, & Masten, 2012). Protective factors (originally referred to as positive risk factors), help to reduce the probability of an individual being affected negatively by risks or stressors (Benard, 1991, 1995; Ungar, 2004). The more protective factors an individual has, the more likely they are to be able to cope with adversity and

return to a baseline level of optimal human functioning (Benard, 1991, 1995; Ungar, 2004).

People can be supported to build their resilience through exposure to various challenging experiences occurring throughout a person's lifetime (Shonkoff, 2015). Studies, such as Bartels and Hudziak (2007) and Caspi, Taylor, Moffitt, and Plomin (2000) have shown that biological factors can predict positive developmental outcomes. In addition, both positive and negative experiences help to shape an individual's capacity to positively adapt to challenges (Fredrickson & Losada, 2005; Shonkoff, 2015; Shonkoff et al., 2009). For example, an individual may have a negative experience (e.g., being unsuccessful in making the cut for the school soccer team or not passing their school maths exam) which then can set off a trigger to self-reflect. This may lead to self-motivation by the person, to practice the skills required to overcome the challenge and be more likely to be successful in the future.

Developmental assets as protective factors.

Developmental assets are protective factors that focus on the growth of core skills that are required for a young person's future success (Havighurst, 1948; O'Dougherty Wright, Masten, & Narayan, 2013; Scales & Leffert, 2004; Schoeppe, Haggard, & Havighurst, 1953; The Search Institute, 2016). Examples include fostering empowerment from challenging experiences, the development of positive identity, and actively developing supportive, positive relationships. Developmental theory details that youth who acquire developmental assets and tasks have a higher probability of coping with challenge and are more likely to

positively adapt and overcome adverse situations (Benson, 1997, 2007; Benson, Leffert, Scales, & Blyth, 2012; Benson, Scales, Leffert, & Roehlkepartain, 1999).

Developmental assets are categorised into either internal or external assets. Internal assets are the personal skills, self-perceptions, and values that contribute to young people taking responsibility of their own lives, making good decisions and being more independent (e.g., achievement motivation, personal responsibility, planning, self-efficacy and decision making). Internal assets include the personal strengths, characteristics or traits of an individual, such as problem-solving, autonomy, social competence and a sense of purpose (Benard, 1991, 1995, 2004). External assets are the supports, opportunities, and relationships that young people need across all areas of their lives (Benard, 1991, 1995, 2004). External assets, otherwise known as environmental assets, refer to the meaningful relationships between an individual and their surroundings such as school, family, community and peers (Benard, 1991, 1995, 2004).

Developmental assets, also considered as psychosocial attributes, are different to developments tasks. Developmental assets relate to the positive relationships, competencies, opportunities, values and self-perceptions that youth need to acquire to succeed in life (Scales & Leffert, 2004). Whereas, developmental tasks are age-related standards of behaviour which span across a variety of areas of an individual's life, including emotional, cognitive, moral, behavioural, social, spiritual and physical areas of achievement or functioning (e.g., self-sufficiency, learning to get along with peers and acquiring a set of values to guide their behaviour) (McCormick, Kuo, & Masten, 2011). These tasks

generally serve as the criteria to judge how well a person is managing their life (O'Dougherty Wright et al., 2013; Piaget, 1972; Scales & Leffert, 2004).

Research has shown that we have the capacity to develop internal and external assets of resilience through direct personal experiences (Passarelli, Hall, & Anderson, 2010; Scales & Leffert, 2004; Sesma Jr, Roehlkepartain, Benson, & Van Dulmen, 2003; Vera & Shin, 2006). For example, Jain, Buka, Subramanian, and Molnar (2011) conducted a community-based multilevel longitudinal study over seven years with young people aged 11-16 years (N = 1,166) to determine if protective factors (developmental assets) would build emotional resilience among an ethnically diverse sample of at-risk youth who were exposed to violence. Their study found that supportive relationships were strong predictors of emotional resilience. Participants of the study, who spent hours on structured activities that provided meaningful experiences in their early adolescent years, reported a significant influence on building their emotional resilience. However, interestingly this was only the case for the group who was not exposed to violence. Groups who were either a victim or witness to violence were not affected by participation in structured activities. The young people in this study who had the highest risk factors also demonstrated the lowest number of average assets, highlighting that these young people would benefit from developing external assets such as positive relationships with peers, teachers and their families to help them cope with adversity. These findings demonstrate the importance of youth having access to programs and experiences that aim to develop resilience and developmental assets.

Resilience as a Trait or System

Theories of resilience detail the concept of resilience from two approaches; at an individual level and at a systems level. Firstly, at an individual level, resilience has been viewed as the psychological capacity that enables someone to maintain or regain mental health while overcoming adversity (Goldstein & Brooks, 2005; Herrman et al., 2011; Kaplan, 2005; Neill & Dias, 2001; Wagnild, 2009). This is also referred to as psychological resilience, mental resilience or mental toughness (Booth & Neill, 2017; Lin, Mutz, Clough, & Papageorgiou, 2017; Neill & Dias, 2001). Psychological resilience is categorised differently from other types of resilience (e.g., physical resilience, environmental resilience, social resilience etc.) as it specifically refers to an individual's ability to maintain, regain or improve one's mental health (Neill & Dias, 2001).

The second approach examines resilience at a systems level, where resilience is viewed as the dynamic interaction of a person's social and physical environments that contribute to the action taken to overcome adversity and maintain or regain mental health and well-being (Masten, 2015). Analysing resilience from these two approaches raises the issue of whether to define resilience as a trait, outcome or dynamic process.

Individual level: Resilience as a trait.

Originally, resilience inquiry identified personal characteristics or traits of individuals who survived and thrived through high-risk situations, stressors or adversity. Virtually all early studies of resilience focused on the individual capacity of the person. Interactions between biological and environmental-

systemic factors (e.g., family, school, institutions, or community) that assist in optimal human functioning were acknowledged, but in these earlier studies the focus remained on the qualities of the individual, not the surrounding social and physical environment (Kaplan, 1999; Ungar, Dumond, & McDonald, 2005; Wagnild & Young, 1993). Earlier research defined resilience as a set of traits (inherited features) or characteristics (personal distinctive qualities) that acted as protective factors to support the individual through adverse situations (Masten & O'Connor, 1989; Rutter, 1985, 1987; Werner & Smith, 1982, 1992). This initial approach formed a crucial foundation in determining the resilient characteristics and traits deemed to be beneficial to assist people to not only survive but thrive in adverse situations.

Internal assets (personal characteristics) such as having a purposeful life (Edward, Welch, & Chater, 2009), self- efficacy (Bandura, 1977), self-esteem (Dumont & Provost, 1999), perseverance (Wagnild, 2009), self-reliance (Samuels & Pryce, 2008) and equanimity (Stagman-Tyrer, 2014) are some examples of resilience attributes that have been associated with improving positive adaption in the face of adversity. Miller (2016) provides a clear example of 42 traits and characteristics that have been identified in resilient people (see Table 2.1).

Table 2.1

Examples of characteristics of resilient individuals

Resilience characteristics		
Able to problem solve	Courage	Persistence
Adaptability	Empathy	Presence
Altruism	Energy	Purpose
Attunement	Faith	Regulate behaviours
Autonomy	Flexibility	Regulate emotions
Awareness	Hope	Regulate thoughts
Calm	Intention	Resonance
Clarity	Intimacy	Resources
Commitment	Joy	Responsibility
Communication	Love	Self-acceptance
Compassion	Meaning	Self-confidence
Competence	Open-mindedness	Stability
Connection	Patience	Trust
Consistency	Perseverance	Value

Note. Adapted from Miller (2016)

These traits and characteristics can be extended further to incorporate different strengths. For example, problem-solving encompasses planning and resourcefulness; autonomy involves self-efficacy, self-awareness, and mindfulness (Bandura, 1977); social competence, comprises of social skills, communication skills, empathy and caring, and the ability to prompt positive responses from others (responsiveness) (Benard, 2004; Masten, 2001); and a sense of purpose entails goal direction, achievement motivation, optimism, and hope (Benard, 1991, 1995, 2004).

Systems level: Resilience as a dynamic process.

Conceptualising resilience as an individual's traits or characteristics ignores the wider contextual factors of the social and physical environment. Resilience is not a personality characteristic (Toland & Carrigan, 2011), resilience is now regarded as a dynamic process of interactions between internal predispositions, protective factors, experiences and external assets (Bandura, 1994; Burdette & Whitaker, 2005; Ewert & Yoshino, 2008; C. Hammond, 2004; Luthar, Cicchetti, & Becker, 2000; Masten, 2001, 2009; Miller, 2015, 2016; Rutter, 2008; Ungar, 2008, 2011; Windle, 2011). A primary issue of past resilience theory has been the inability to develop a definition of resilience which encapsulates the dual focus of both the individual and an individual's social-ecology (Ungar, 2008).

Resilience and Social-Ecology

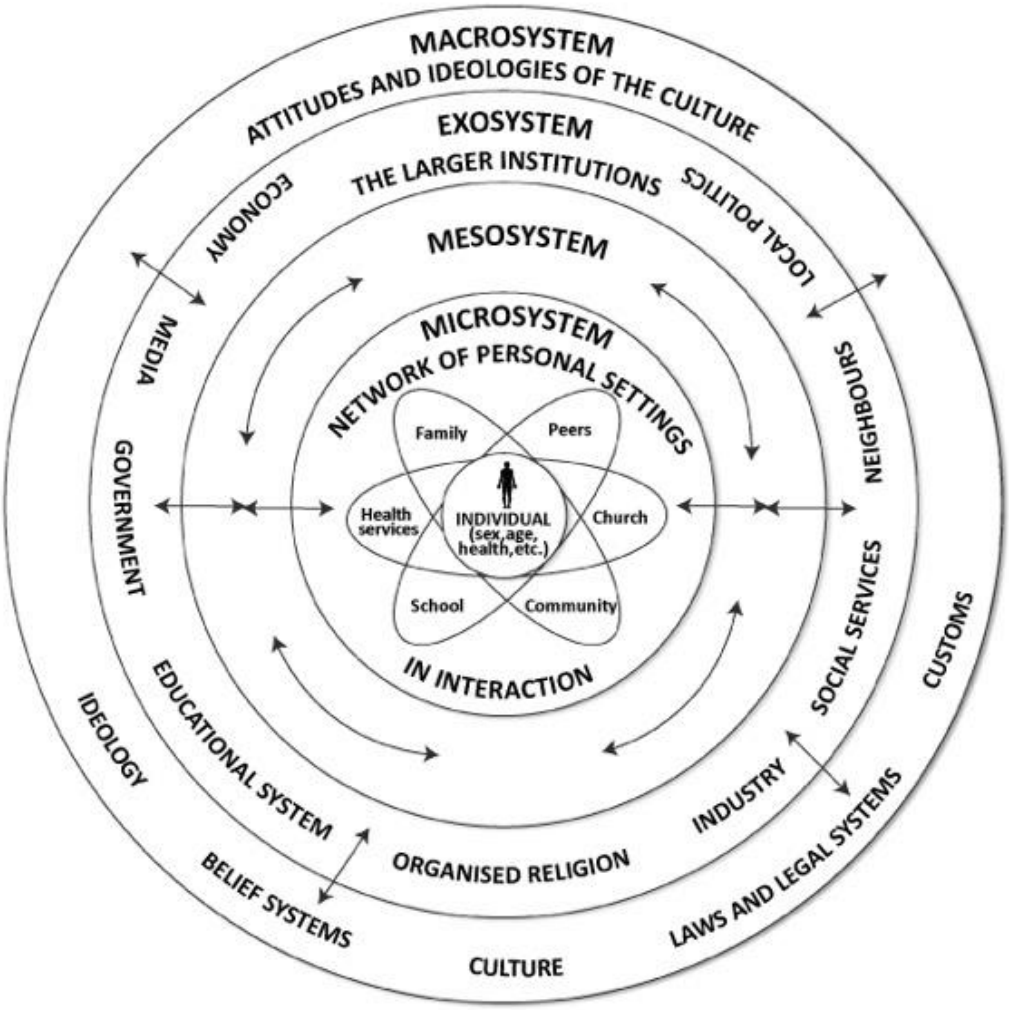
The development of an individual is the direct result of the relationships and interactions between themselves and their environments within their ecological systems (Bronfenbrenner, 1981; Ungar, 2012). Human development, including the development of resilience, is consequently the outcome of the complex interactions between a growing individual and their environment (Bronfenbrenner, 1981).

Bronfenbrenner's (1977) ecological model details the interactions between an individual's biological, psychological and social-cultural systems (see Figure *2.4*). The model demonstrates that an individual's development is dependent on their relationships with their surrounding microsystems which include, family,

school, and community systems. Mesosystem interactions are the interactions between microsystems. Within the micro- and mesosystems, a young person's protective factors are generally identified across three levels of functioning:

1. Individual (e.g., psychological, neurobiological, behavioural).
2. Social (e.g., peer support, family cohesion, parental support).
3. Community/societal (e.g., support systems generated through social and political capital, and institutional and economic factors, such as schools) (Garmezy, 1985; Werner, 1995, 2000; Windle, 2011).

Developmental resources within mesosystems that are designed to support personal growth, such as counselling, school camps and academic support programs, have a positive correlation with people's ability to cope with challenges (Ungar, 2011). Consistent with other researchers, Bronfenbrenner (1977, 1981) also suggests that positive growth occurs when conditions are optimal (Hanson & Kim, 2007; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). An example of optimal conditions for positive growth would be when an individual is feeling loved and supported not only in their home environment, but they are also feeling supported and encouraged while they are in their school and community environments. Positive adaption is not the result of individual characteristics nor social environments alone, but rather involving the complex interplay between the two.



Note. Adapted from (Garbarino, 1982) and (Bronfenbrenner, 1977, 1981)

Figure 2.4. The ecology of human development systems model.

It is the external assets (e.g., positive relationships with peers, family and other significant adults) which make up a person's social-ecology that is more likely to impact developmental pathways of resilience, rather than the impact of individual internal assets alone (e.g., positive values, positive identity etc.) (Ungar, 2011) (also see Table 2.1). In other words, ‘nurture trumps nature’.

Table 2.2 provides examples of risk and protective factors which occur for a person across their microsystems and mesosystems. The interactions between these systems are demonstrated in Figure *2.4*. It should be noted that changes which occur in one system have the potential to then flow over and impact other systems (Masten & Cicchetti, 2010). This can have either positive or negative outcomes depending on the system affected. For example, if an individual has risk factors in their family environment, such as family conflict, it is more likely the individual will be affected negatively in another system, such as their school life and academic achievement. Protective factors operate in a similar manner with positive development occurring in other systems (see Table 2.2) (Ungar, 2012).

Table 2.2

Examples of risk and protective factors at microsystem systems levels

Microsystem	Risk factors	Promotive and protective factors
Individual	Difficult temperament	Easy temperament
	Poor social skills	Adequate nutrition
	Low self-esteem	Problem-solving skills
	Physical and intellectual disabilities	School achievement
	Impulsivity	Above average intelligence
	Low intelligence	Internal locus of control
	Alienation	Social skills and competence
	Chronic illness	Optimism
	Insecure attachment	Positive self-related cognitions
		Values and moral beliefs
Family	Homelessness	Supportive, caring parents
	Divorce or family break up	Responsibility within family
	Family conflict	Strong family norms and morality
	Violence in the home	Supportive relationship with adult other
	Physical, sexual or emotional abuse	than parents
School	Bullying	Sense of belonging/ connectedness
	Peer rejection	Positive peer relationships
	Inadequate behaviour management	Positive behaviour management
	School failure	Opportunities for success and
	Member of deviant peer group	recognition of achievement
	Racism	Required responsibility/helpfulness
	Homophobia	Positive teacher-student relationships
	Poor attachment to school	Collaborative teaching strategies
	Family/parent disengagement in	Positive school climate
	school	Engagement in learning
Community	Isolation	Sense of belonging/ connectedness
	Social or cultural discrimination	Strong cultural identify
	Lack of support services	Participation within community groups

Note. Adapted from Bond et al., (2007); Catalano, Oesterle, Fleming, & Hawkins, (2004); Masten, (2009); Steinhardt & Dolbier, (2007); Stewart, McWhirter, Rowe, Stewart, & Patterson, (2007); Werner, (2000).

Strengthening protective factors within an individual's micro and meso-systems while increasing the developmental resources within a person's social-ecology, can enhance his or her capacity to cope with adversity (O'Dougherty Wright & Masten, 2015). Their adaptive capacity relies on their ability to alter or change their characteristics or behaviour to cope better with the existing or anticipated stressor (Brooks, 2003). Their competence is demonstrated by their adaptive use of personal or contextual resources to implement developmental tasks which are age-appropriate (O'Dougherty Wright & Masten, 2015).

Positive adaption can be expressed across systems as well as within the individual. As resilience is comprised of many attributes which are strongly associated with positive social interactions (e.g., self-esteem and self-efficacy) (Cason & Gillis, 1994; Miller & Allen-Craig, 2005; Neill & Richards, 1998), exposure to situations that involve supportive peers, positive teacher influences and opportunities for success, can improve resilience in young people (Olsson et al., 2003). Table 2.3 provides examples of the bio-psycho-social-cultural systems and processes that can positively impact a young person's capacity to adapt to challenges.

Table 2.3

Examples of bio-psycho-social-cultural systems and processes that can implicate fostering resilience in young people

Domain	Systems	Examples of bio-psycho-social-cultural systems and processes
Within the individual	Microsystems	Genetic moderators and epigenetic processes Positive physical health and immune function Adaptive self-regulation system (physiological, emotional, cognitive, and behavioural) Adequacy of stress response systems Strong cognitive and problem-solving abilities Agency and an effective mastery motivation system Adaptive temperament and personality
Within the family	Microsystems and Mesosystems	Close attachment relationships Positive extended family and kinship ties Cohesiveness, structure, and support within the family Effectiveness of parenting in the cultural context Family rituals, values, and beliefs
Within the community	Microsystems and Mesosystems	Safety of the physical environment Effective education system Peer friendships with positive values and norms Presence of religious and spiritual communities Good public health care and social services Access to recreational facilities
Within the culture and society	Macrosystems	Belief systems that give life meaning and purpose Protective child policies (child labour, child health and welfare policies) Availability and adequacy of emergency response systems Access to material resources Global relationships with international community

Note. Adapted from O'Dougherty Wright & Masten (2015).

As demonstrated in the above tables, microsystems such as schools play a critical role in developing a young person (Bronfenbrenner, 1981). While some schools do not always operate in supportive ways for youth (Toland & Carrigan, 2011), they are an important part of promoting a young person's social competence and well-being by enhancing environmental protective factors and developmental assets such as fostering positive relationships and providing encouragement (Greenberg et al., 2003; R. D. Taylor & Dymnicki, 2007). Importance has been placed on school experiences and programs as they are seen as critical components to promoting resilience in young people (Toland & Carrigan, 2011).

The more adolescents are exposed to stressors and risk factors, the more they will benefit from developing protective factors, such as positive relationships with significant adults (e.g., mentors, coaches, teachers) (Lerner, Napolitano, Boyd, Mueller, & Callina, 2014; Ungar, 2011). Programs that include youth mentoring have been shown to develop the competence and character of adolescents by developing a personal relationship in which a caring individual provides consistent companionship, support, and guidance (Keller, 2007).

Defining Resilience

Resilience is a multi-dimensional construct which integrates multiple levels of analysis and investigates the way systems interact to shape human development (Allan, McKenna, & Hind, 2012; Miller, 2015; Stokes, 2009). It is a dynamic process in which a person's capacity to positively adapt, expands beyond the internal skills and traits of the individual to his or her social connections and

environment. An individual's capacity to demonstrate resilience is distributed across and connected with their biological, psychological and social-cultural systems (O'Dougherty Wright et al., 2013). Resilience should always be discussed in the context of adversity, as facing challenges illuminates people's responses which requires them to draw on resilience traits, assets and resources (Schoon, 2013). Masten and Coatsworth (1998) suggests that resilience is based on two fundamental judgments: (1) is a person 'doing ok'? and, (2) is there now, or has there been any significant risk or adversity to be overcome? Therefore, the construct is defined by two aspects:

1. Exposure to adversity, and
2. Effective adaptation in the face of that risk (Luthar et al., 2000; Masten, 2001; Toland & Carrigan, 2011).

In Ungar's (2011) more recent explanation of resilience, he provides a definition which encompasses both the context of exposure to significant adversity as well as positive adaption. He defines resilience as "both the capacity of individuals to navigate their way to the psychological, social, cultural and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways" (Ungar, 2008, p. 225). This definition acknowledges the complex interplay of the relationships, processes and protective mechanisms of resilience within a social-ecological framework. In summary, resilience is defined as an individual's capacity to utilise their internal and external assets to maintain or regain personal well-being when confronted with adversity.

Related Constructs of Resilience

As resilience is related to an individual's capacity to adapt to stressors, it is evident that resilience is closely related to many other constructs and concepts, including mental toughness (Booth & Neill, 2017), executive functioning (Bradley, 1990; Lee, Bull, & Ho, 2013), psychological flexibility (Kashdan & Rottenberg, 2010), self-efficacy (Bandura, 1977), grit (Duckworth & Eskreis-Winkler, 2013; Von Culin, Tsukayama, & Duckworth, 2014), hardiness (Bartone, 1995; Florian, Mikulincer, & Taubman, 1995) and self-determination (Hattie et al., 1997). These positive human traits are essential factors in building a 'pathway' to resilience (Bonanno, 2004), however researchers indicate that these constructs may not be included in the definition as it may cause confusion to the understating of resilience (Smith et al., 2008).

For instance, psychological resilience can also be interpreted as mental toughness (Booth & Neill, 2017). Mental toughness is used as an umbrella term to describe positive psychological resources that are crucial for mental health (Lin et al., 2017). As a cognitive process, mental toughness can be defined as disciplined thinking. The findings of a systematic review by Lin et al. (2017) indicates that mental toughness is associated positive with psychological traits, effective coping strategies and positive outcomes in both education and mental health. Similarly, hardiness has been defined as a combination of managing commitment, control and challenge, and to demonstrate the ability to turn a stressful situation into an

opportunity for growth (Bartone, 1995; Florian et al., 1995). The next section provides a brief summary of related resilience constructs considered in this study.

Executive Functioning

Executive functioning is directly related to one's ability to cope with stressors as it refers to an individual's ability to regulate and apply purposeful control over emotional responses, behavioural impulses and cognitive processes, such as attentional control, working memory, and planning (Bradley, 1990; Lee et al., 2013). Executive functions are "an array of mental processes responsible for regulation of cognitive functioning during purposeful, goal directed problem-solving behaviour" (Dehn, 2014, p. 27).

Psychological Flexibility

Closely related to executive function is psychological flexibility. Kashdan and Rottenberg (2010) defines psychological flexibility as the measure of how a person; (1) adapts to fluctuating situational demands, (2) reconfigures mental resources, (3) shifts perspective, and (4) balances competing desires, needs, and life domains.

Psychological flexibility has been found to increases levels of resilience, self-reliance, meaningful experiences, confidence, the ability to master challenges and also improve the time response in recovery from stressful events (Gjerde, Block, & Block, 1986). Conversely, individuals that score low in psychological flexibility experience higher levels of negative life outcomes, such as depression,

anxiety, an increase in substance use and reduction in the ability to learn (Coulson, 2017).

Self-efficacy

Another important human characteristic for all people, but especially adolescents is self-efficacy. Self-efficacy is directly linked to self-esteem and refers to an individual's personal expectation that they can achieve their desired goals or outcomes in specifically chosen areas (Bandura, 1977). A young person's perception of their self-efficacy can be enhanced by the development of self-reflection skills and self-regulatory processes. For instance, when a young person evaluates the success of a challenging goal achieved through perseverance and planning, their self-efficacy will be enhanced (Zimmerman & Cleary, 2006). An example of such a challenge that appears difficult but achievable may be a young person participating in a public speaking contest in front of the entire school. In contrast to this, if a young person has unrealistic expectations or is pushed into attempting unachievable goals, their self-esteem and self-efficacy may be negatively affected.

Human characteristics such as self-efficacy, resilience and self-esteem can increase if young people are given the opportunities to participate in challenging experiences which allow them to set and attempt authentic goals, where they can undertake concrete experiences, and also receive feedback from significant others (e.g., peers, teachers or parents) (Schunk & Meece, 2006; Zimmerman & Cleary, 2006). Even if the attempts at achieving the goals or overcoming the challenges are unsuccessful, opportunities for reflection where participants can identify the

reasons for failure can also support the growth of self-efficacy and self-esteem (Kidd & Shahar, 2008; Priest & Gass, 2005; Swarbrick, Eastwood, & Tutton, 2004).

Internal Locus of Control

Closely linked to self-efficacy is the concept of internal locus of control. This is a personality construct that determines how individuals perceive their success and failure of outcomes (Hans, 2000; Hong, Shull, & Haefner, 2011). Psychological resilience has been found to moderately to strongly correlate with higher internal locus of control (r = .4 to .7) (Jew, Green, & Kroger, 1999). The links between internal locus of control and other factors of resiliency are widely researched, including; locus of control, self-efficacy and motivation (A. Anderson, Hattie, & Hamilton, 2005); locus of control, self-efficacy, persistence, and commitment (Hong et al., 2011); locus of control and personal effectiveness (J. W. Johnson, 2012); and the effects of adventure programming on locus of control (Hans, 2000).

The meta-analysis conducted by Hans (2000) examined the effects of adventure therapy programming on locus of control, with data representing 24 studies (30 effects, 1,632 participants). The results demonstrated a small-moderate effect size of 0.38. Specifically, two significant factors were highlighted; (1) programs that included therapeutic goals as their primary purpose had higher effect sizes than other programs that had general goals, such as recreation; and (2) sessional programs that included adventure activities but did include overnight trips away from an unfamiliar environment, were less effective than programs of

residential and semi-residential capacity, that removed participants from familiar environments overnight.

The study by Jew et al. (1999) also established that individuals who have higher levels of resilience also tend to demonstrate the following characteristics;

- higher internal locus of control,
- better academic skills,
- higher self-perceived competencies in athletic performances, friendships, scholastics and jobs,
- exhibit a more extensive repertoire of coping skills, and
- increase in a variety of personal beliefs that enable him/her to acquire and use more effective coping skills in times of stress (Jew et al., 1999).

In addition to the research presented here, Ungar (2011) suggests that locus of control is required to navigate both the internal assets and external resources for positive development and resiliency of an individual.

Measures of Resilience and Coping

There are numerous instruments that are available to measure resilience with a range of target populations (e.g., The Connor-Davidson Resilience Scale (Connor & Davidson, 2003), California Healthy Kids Survey - The Resilience Scale of the Student Survey (Sun & Stewart, 2007), the Dispositional Resilience Scale (Bartone, 1995, 2007) and the Brief Resilience Scale (Smith et al., 2008). There are also various resilience instruments that have been used successfully

with adolescent populations (e.g., The Child and Youth Resilience Measure (Ungar et al., 2008), Adolescent Resilience Scale (Oshio, Kaneko, Nagamine, & Nakaya, 2003), The Ego-Resiliency Scale (Block & Kremen, 1996) and Youth Resiliency: Assessing Developmental Strengths (T Donnon & Hammond, 2007; Tyrone Donnon, Hammond, & Charles, 2003). However, a review of the literature found the Resilience Scale (Wagnild & Young, 1993) to be the most appropriate and effective tool to measure resilience and resilience attributes with young people in outdoor education settings because:

1. It has been successfully used to measure changes in adolescent resilience (Ahern, 2006; Gillespie & Allen-Craig, 2009; Skehill, 2001) and has provided data to support programs that potentially help youth at risk increase resilience (Fenemor et al., 2008).
2. The Resilience Scale has been used to measure resilience in outdoor education contexts, which have shown positive changes in resilience scores (Neill & Dias, 2001).
3. The Resilience Scale is psychometrically validated and has satisfactory psychometric properties (Ahern, 2006; McDonald, Jackson, Wilkes, & Vickers, 2012; Yoshino, 2008).
4. The length of the Resilience Scale is an appropriate length for the attention span of adolescent's (Wagnild, 2009; Wagnild & Guinn, 2011).

5. The language used in the scale is appropriate for the understanding and interpretation of questions with adolescent populations (Wagnild & Guinn, 2011).
6. The conceptual framework and design of the measure aligns with outdoor education philosophies for personal growth and development (Ewert & Yoshino, 2008; McDonald et al., 2012).

Even though coping and resilience are similar and interrelated (Haggerty et al., 1997; Masten & Obradović, 2006), they require separate measurements as they are different constructs. Coping measures tend to focus on measuring specific cognitive and behavioural actions of an individual, whereas the resilience measures focus more on how the individual feels they are as a person. For example, the Resilience Scale uses statements such as 'I am determined' or 'I am resilient' (Wagnild & Guinn, 2011).

There are also various instruments available to measure coping such as the Life Events and Coping Inventory (LECI): Targeting Children (Schwarzer & Schwarzer, 1996), the Adolescent Coping Orientation for Problem Experiences Inventory (A-COPE) (Patterson & McCubbin, 1987) the Adolescent Coping Scale (Frydenberg & Lewis, 1993) and the original COPE Inventory (Carver et al., 1989).

The original COPE Inventory (Carver et al., 1989) was designed from a compilation of the Lazarus (1984) model of coping, relevant coping literature at the time and the model of behavioural self-regulation (Carver & Scheier, 1990; Carver & Scheier, 1981). However, upon review the original multidimensional 60

item COPE Inventory, the scale was shortened to a 28-item version, called the Brief COPE (Carver et al., 1989). The Brief COPE scale is a well-known instrument used to measure coping skills and has been implemented with a variety of target populations worldwide (Artinian et al., 2009; Badr, 2004; Glass, Flory, Hankin, Kloos, & Turecki, 2009; Hastings et al., 2005).

Research has shown the Brief COPE to be the most suitable instrument to measure coping skills with youth in outdoor education settings (Ewert & Yoshino, 2008), compared to the original 60-item COPE Inventory and other coping inventories for numerous reasons, such as:

1. The Brief COPE did not include items that were deemed to be redundant or items that were proven not to be of value in previous research with the original 60-item COPE Inventory (Carver, 1997).
2. The Brief COPE was deliberately designed for use in natural settings and therefore provides a suitable scale for outdoor education programs (Carver, 1997).
3. The minimal length of the scale was favoured to cater for time constraints and attention spans of adolescent participants (Carver et al., 1993).
4. The language used in the scale was interpreted as appropriate for youth comprehension and has also been used successfully with adolescents in an outdoor education context (Ewert & Yoshino, 2008).

Approaches for the Development of Resilience and Coping

Numerous programs have targeted the development of resilience in young people, to enhance internal and external assets to assist them to manage difficulties and adversity in their lives (Beightol, Jevertson, Gray, Carter, & Gass, 2009; Ewert & Yoshino, 2011; Gillespie & Allen-Craig, 2009). As Ahern et al. (2008) suggests, resilience is developmental in nature, and with an active approach, it can be supported and promoted. However, even though resilience is a common process, not everyone has developed effective coping skills required to overcome the challenges of everyday life (Skehill, 2001). In order for young people to live at an optimal level of human functioning, it is important to support them in learning and practising coping skills and developmental assets to build their resilience capacity (Masten, 2001).

The terms ‘therapy’, ‘treatment’ and ‘training’ have been used to describe approaches to developing resilience, such as wilderness therapy (D. S. Berman & Davis-Berman, 1989), preventative treatment (Meichenbaum, 2017b) and stress inoculation training (Meichenbaum & Deffenbacher, 1988). However, Ballenger-Browning and Johnson (2010) suggests that renaming these approaches to ‘resilience building’ may help to reduce the stigma attached to the traditional approach to mental health treatment.

Resilience can be built through a variety of avenues, including through stress inoculation, setting attainable goals, decision making processes, building caring and supportive relationships within and outside the family and through

building social support in community groups (American Psychological Association, 2011; Benard, 1991; Werner & Smith, 2001).

Benard (2004) suggests three keys factors be included in frameworks to promote resilience in youth:

1. Caring relationships,
2. High expectations from adults, and
3. Meaningful ways to participate.

Along with caring relationships with adults, adults who have high expectations of youth and provide opportunities for meaningful participation, help to assist young people to develop resilience characteristics (Hanson & Kim, 2007). Other protective factors such as positive social relationships with peers and teachers have also been directly related to the enhancement of adolescent resilience (Olsson et al., 2003).

There are many resilience frameworks, models and interventions that aim to support student knowledge, skills and capacities to manage life challenges and maintain mental well-being across various target groups (Barrett et al., 2014; BoingBoing, 2012; MindMatters, 2018; Pathways Health and Research Centre, 2018; Scales, 2011). Successful resilience development frameworks appear to be underpinned by a number of overlapping theoretical approaches, including; social and emotional learning, stress inoculation, cognitive behavioural approaches and positive psychology. The next section will describe the approaches to building resilience that are specific to this research.

Cognitive Behavioural Approaches

Behaviours, thoughts and emotions all help to shape the learning process, therefore, when discussing personal growth and the concept of changing people and their behaviours, two widely accepted theories should be acknowledged; behaviouristic theory and cognitive behavioural change processes (also known as Cognitive Behaviour Therapy (CBT) when used in the context of therapy). Behaviouristic theory promotes that behaviour can be learned, and therefore, unlearned (Watson, 1913). This theory indicates that both positive and negative patterns of behaviour can be developed.

The basic premise of the cognitive behavioural change process is understanding that how a person thinks or feels will be the underlying reason for how that person reacts emotionally and behaviourally in variable circumstances (Long, 2011). Resilience development programs may support young people in becoming aware of thoughts, feelings and behaviours that may be influencing their personal development.

There are many cognitive behaviour modification techniques and somatophysiological coping strategies that are commonly used to aid in building resilience, and maintaining mental health and well-being (Lazarus, 1984), such as mindfulness (Lillis, Hayes, Bunting, & Masuda, 2009; Wilson & Baer, 2010), meditation (Miller, 2015), relaxed breathing techniques (O'Connell, 2005), journaling, progressive muscle relaxation (also known as body scanning), and positive reframing of thoughts (Antoni, Ironson, & Scheiderman, 2007; Bennett et al., 2013).

Stress Inoculation as a Preventative Approach

"Stress inoculation means acquiring sufficient knowledge, understanding and coping skills to facilitate better ways of handling expected stressful confrontations" (Lazarus & Folkman, 1984, p. 342). The concept of stress inoculation proposes that an individual's resistance or capacity to cope is enhanced by exposure to a stimulus that is strong enough to stimulate one's defences and coping mechanisms without being too intense that the stimulus becomes overwhelming for the individual (Meichenbaum, 2017b; Meichenbaum & Deffenbacher, 1988; Novaco, 1977).

To explain this concept, many researchers have used the analogy of immunisation to describe the relationship of how stress plays a vital role in enhancing resilience (Booth, 2015; Meichenbaum, 2017b; Rutter, 1993). For instance, young people are required to receive their immunisations against specific diseases to attend school in Australia, with the opinion that they will become immune to the disease through either small amounts or gradual exposure to a pathogen. Similarly, resilience can be developed through incremental exposure to challenges that simulate and test one's feelings of competence, comfort and safety (Masten & Reed, 2002). Researchers have termed this process the 'stress inoculation model' (Meichenbaum, 1996 ; Meichenbaum & Cameron, 1989; Meichenbaum & Deffenbacher, 1988; Neill, 2008).

Similarly, the principles of stress inoculation training (SIT) utilise a preventive approach build resilience (Meichenbaum, 2017b). SIT is a cognitive behaviour approach as it is a form of cognitive restructuring. It is used as a

method of changing an individual's thinking patterns about themselves and their lives (Antoni et al., 2007). SIT is used for a variety of types of people, including medical patients, psychiatric patients, individuals with performance anxiety, professional groups, as well individuals who have to deal with the stress of life transitions, such as coping with changes in adolescence and transitioning from junior school to secondary school (Meichenbaum, 2017b, p. 129).

SIT is designed to strengthen an individual's preparedness for adaption to challenges and help to develop a sense of mastery (Meichenbaum, 2017b, p. 122). The concept is based around helping people to firstly recognise their thoughts, behaviours and patterns, and secondly, to help them change negative thoughts that have been influencing their behaviour (Meichenbaum, 1977, 2017a).

The SIT model has three phases (Meichenbaum, 2017b, pp. 131-132). The first phase is the education phase; this involves understanding the way distressing emotions are generated, emphasising the cognitive factors and self-statements (self-talk) that are involved in these emotions (Meichenbaum, 2017b; Novaco, 1977). Through the education process, individuals expand their awareness of their existing coping skills they use in response to challenges.

The second phase, known as the rehearsal phase, is where participants practice coping skills, such as using alternative self-statements while under emotional distress. This stage requires the participants to be provided, educated and coached about other ways to apply positive self-talk (Meichenbaum, 2017b; Novaco, 1977). This phase includes developing psychological tools and cognitive restructuring techniques, such as breathing, relaxation techniques and stopping

negative thoughts. The strategies are designed to help participants become aware of their responses to challenging situations, help them to control unwanted, maladaptive thoughts and emotions, to help moderate emotional responses and evaluate their own performance (Meichenbaum, 1977).

The last phase of the stress inoculation model is the application and follow-through phase. In essence, this is the part of the programming where participants are 'inoculated' and have opportunities to test new learning and practice coping strategies Meichenbaum (2017b, pp. 131-132). This type of cognitive behaviour training may help participants to shift old habits and mindsets. For example, SIT has been used to influence people to utilise a ‘growth mindset’ where they can move from having a ‘victim’ mindset to having a ‘growth’, ‘survivor’ or ‘thriver’ mindset (Bennett et al., 2013; Dweck, 2006 ; Jelalian, Mehlenbeck, Lloyd-Richardson, Birmaher, & Wing, 2005; Payne, Youngcourt, & Beaubien, 2007).

Positive Psychology

The rapidly increasing domain of positive psychology is a strength-based approach in which the underpinning theory is based on resilience development and understanding adaptive mental, social, and physical health and well-being. According to Seligman and Csikszentmihalyi (2000, p. 5) positive psychology is "the scientific study of optimal human functioning (that) aims to discover and promote the factors that allow individuals and communities to thrive". As a means to address mental health and develop resilience attributes, this strengths-based approach includes the study of positive subjective experiences (i.e. well-being,

flow, etc.), positive individual traits (i.e. optimism, forgiveness etc.), and positive institutions (Carr, 2011; Ewert & Yoshino, 2008; Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002).

Positive psychology aims to help young people to flourish by applying the six domains of the positive education model including; positive relationships, positive emotions, positive engagement, positive purpose, positive health and positive accomplishment (Norrish, Robinson, & Williams, 2011). Additionally, positive psychology focusses on developing one's character strengths and virtues (Park, Peterson, & Seligman, 2004), mindfulness, sense of life meaning and purpose, resilience attributes, and psychological well-being and mental fitness (Seligman, 2011).

Developing character strengths can have a significant positive impact on lives, including improved relationships, enhanced health and overall well-being and working as a buffer to help one manage and overcome problems (Park et al., 2004; Peterson, Ruch, Beermann, Park, & Seligman, 2007; Wood, Linley, Maltby, Kashdan, & Hurling, 2011). Character strengths are a universally recognised subset of personality traits that are morally valued (Park et al., 2004). Within the domain of positive psychology, there are several ways to understand character strengths. One of the most commonly used frameworks is the Values in Action (VIA) Framework (Park et al., 2004). Table 2.4 presents the 24 character strengths under six virtues within VIA framework (Park et al., 2004). Everyone possesses all 24 of the identified character strengths to some capacity; however, each

individual's strengths range in the degree to which their unique character profile is operationalised.

Table 2.4

Values in Action (VIA) framework of character strengths

The 6 character strength virtues	The 24 character strengths
Wisdom and knowledge	Perspective, creativity, curiosity, open-mindedness, love of learning
Courage	Persistence, honesty, bravery, and zest
Humanity	Social intelligence, kindness, love
Justice	Teamwork, leadership, fairness
Temperance	Self-regulation, forgiveness, modesty, prudence
Transcendence	Gratitude, appreciation of beauty and excellence, hope, humour, religiousness/spirituality

Note. Adapted from Park, Peterson, and Seligman (2004)

By supporting a young person to develop their emotional intelligence, they are more likely to be able to recognise and manage their emotional responses to stressors, solve conflicting situations and apply other resilience attributes, such as perseverance and self-reliance. Using positive psychology practices and helping young people to feel positive emotions, has the opportunity to increase self-confidence, help them to perform and try new tasks, and assist them with processing new information (L. D. Hammond, Austin, Orcutt, & Rosso, 2001). On the contrary, negative emotions can elicit stress responses, such as fear or anxiety, which can distract the young person and have an impact on their ability to focus and learn.

Understanding Outdoor Education

Since the start of contemporary outdoor education in the early 20th century (T. James, 1990; Priest & Gass, 2005), the field has been presented with numerous simplistic definitions, such as that outdoor education is "education which takes place in the outdoors" (Hammerman, Hammerman, & Hammerman, 2001, p. 5) or that it is "education 'in', 'about', and 'for' the out-of-doors" (Donaldson & Donaldson, 1958, p. 63). To this day, the term 'outdoor education' is still yet to be clearly defined. It seems that educational professionals have avoided stringent definitions of outdoor education, as the meaning not only varies according to time, place and culture but also differs depending upon the philosophy of a company, educational institute or an individual facilitating the outdoor program (Brookes, 2004; Ford, 1986; Lugg, 2004; Neill, 2008).

Outdoor education is the combination of the interrelationships between humans, and humans and the nature environment, making it complex and diverse in nature (Priest, 1986). It is a holistic, interactive and dynamic learning process that engages an individual's physiological, cognitive, behavioural, emotional, spiritual, social, cultural, and environmental systems (Neill, 2008). Outdoor education programs provide opportunities for young people to explore how their actions influence themselves, others and the natural world. This type of learning has the potential to develop their capacity for healthy decision making around risk and increasing an understanding of self.

Specifically, journey style outdoor education programs take a three-pronged approach that focuses on the development of an individual's relationship

with themselves (intrapersonal skills); an individual's relationships with others (interpersonal skills); and an individual's relationship with the natural environment (human-nature relationships) (Burridge, 2003; Cooper, 1994; Higgins & Loynes, 1997; Martin, 2010; Martin & Hewison, 2010; Priest, 1986). Researchers identify seven key elements of journey style outdoor education programs:

1. The group sizes are small groups of ideally 12-14 participants with a maximum of l6-18 participants.
2. The program occurs in a semi-wilderness environment;
3. Participants are isolated from many or all forms of technology and human impact or development;
4. There is the presence of a group leader and program facilitator;
5. There is continual contact with the learning activities and a structured curriculum;
6. There are appropriate levels and forms of challenge for participants (physical, emotional, spiritual) and;
7. There is an aim to transfer learning to and from the program. (Neill, 2008; Priest & Gass, 2005).

These elements are maintained by similar fields that use adventure and the natural environment as a catalyst for personal development with participants, such as adventure therapy and wilderness therapy (Gass, 1993a; Nadler, 1993; Norton, 2008; Norton et al., 2014; Tucker et al., 2018).

Adventure and Wilderness Therapy

The overarching goals of Wilderness Therapy are for the individual to increase their self-awareness across a variety of domains, by allowing participants to experience concrete examples of dysfunctional behaviour, and then be shown alternative behavioural responses and interpersonal choices which lead to success (Newes & Bandoroff, 2004). Similarly, with the intent to develop and transfer resilience attributes and positive coping skills, the goal of mainstream outdoor education programs is for participants to become self-aware and increase intrapersonal and interpersonal development.

Gass (1993a) has modified experiential learning principles and proposed how these elements can not only be applied for personal growth, but also for therapeutic purposes. Based on Gass's (1993a) adventure therapy theoretical framework, Kimball and Bacon (1993) identify 14 elements that are significant in the adventure therapy process. The framework includes: (1) multiple treatment formats, (2) group focus, (3) processing, (4) applicability to multi-model treatment, (5) sequencing of activities, (6) perceived risk, (7) unfamiliar environment, (8) challenge by choice, (9) provision of concrete consequences, (10) goal-setting, (11) trust-building, (12) enjoyment, (13) peak experience, and (14) therapeutic relationship (Kimball & Bacon, 1993; Nadler, 1993; Newes & Bandoroff, 2004). These elements are consistent with the seven key elements of outdoor education programs as outlined above.

Wilderness therapy programs are generally used as an adventure intervention for therapy with minority groups (Somervell & Lambie, 2009),

especially youth at risk (Bedard, Rosen, & Vacha-Haase, 2003; Gillespie & Allen-Craig, 2009; Nadler, 1993; Vissell, 2005). However, the program design elements of wilderness therapy are consistent with programming for mainstream outdoor education that aims for personal growth and relationship development through the application of adventure, challenge, risk and experiential learning.

Wilderness therapy programs involving adolescents have been found to have significant positive benefits, including increased levels of resilience (Gillespie & Allen-Craig, 2009) and reducing stress associated with interpersonal and mental health issues (Bettmann, 2012; Staunton, 2003). For example, Bowen and Neill's (2013) meta-analysis of adventure therapy outcomes compared overall results of wilderness therapy interventions with no treatment or alternative treatment groups and found an overall moderate effect size (ES = .47). The findings of Bowen and Neill (2013) study that examined the effects of programs on 17,728 participants indicated there to be a small positive (.05) overall effect on the long-term benefits of participants learning post-program. The results support the proposition that the program benefits, such as social development, self-concept and family development, may be transferred into other areas of life and maintained long-term (Bowen & Neill, 2015). In addition, Bettmann (2012) examined 34 studies that included a total of 2,767 clients. Their data also demonstrated medium-sized (effect size, ES = .43) overall effects, revealing that wilderness therapy programs are effective interventions for adolescents. This is further supported by Cason and Gillis's (1994) meta-analysis examining the effects of adventure-based programs, considering 43 studies and including results

from 2,291 adolescents. The results of the adventure therapy studies consistently demonstrated moderate effect sizes in the .42 range.

Outdoor Education Program Design

Depending on the aims, outdoor education programs can range in length from short hourly blocks, to single day experiences, to multi-day or expedition type experiences. Outdoor education programs can take place in various types of locations from residential style camps to journey style programs where small self-contained groups of participants travel through natural environments.

Journey style programs primarily focus on the development of relationships through exposure to challenge and risk within an outdoor setting. This outdoor education approach appears to have the potential to develop resilience attributes (Gillespie & Allen-Craig, 2009) and coping skills (Yoshino, 2008). However, regardless of the length and location of programs, Hopkins (1985) suggests that for an outdoor education program to be considered effective, they should include the following characteristics:

- Experiential learning with high impact, problem-solving experiences;
- Adaptation to the physical, social, and cultural needs of participants;
- High expectations and focus on individual achievement;
- An empathic climate;
- An emphasis on group process, social skills, cooperation, and effective communication;

- Incorporation of environmental awareness and creative appreciation; and
- Regard adventure as a metaphor for life (Hopkins, 1985).

Concepts of Outdoor Education

Outdoor education philosophies and practices are typically based on the premise that personal growth and development of the participants occurs through the process of inoculation to stress and development- by-challenge (Neill & Dias, 2001). This process is also known as the stress inoculation model (Meichenbaum, 1996 ; Meichenbaum & Cameron, 1989; Meichenbaum & Deffenbacher, 1988; Neill, 2008).

Fundamentally, outdoor education is built upon a pragmatic approach to learning, whereby, "pragmatism is the belief that the value of any learning experience is determined by the degree of learning that occurs from the actions and consequences of the experience" (Priest & Gass, 2018b, p. 34). Pragmatic philosophy details that the learning experiences, learning processes and theories are only valuable if they help the student learn and then apply their new learning back to their everyday lives (James, 1900; Kraft & Sakofs, 1988). Depending on the intended aims and outcomes, outdoor education programs are embedded with various behavioural, cognitive and experiential philosophies, theories, frameworks and constructs. According to Bowen et al. (2016, p. 32) who examined online survey responses from 98 program leaders and 24 program managers, the most commonly used theoretical frameworks on their outdoor education programs were "experiential learning (73%), challenge by choice (54%), facilitated reflection

(52%), natural consequence (51%), and social learning (30%)". The next section provides a brief review of the learning theories relevant to this research.

Constructivist theory.

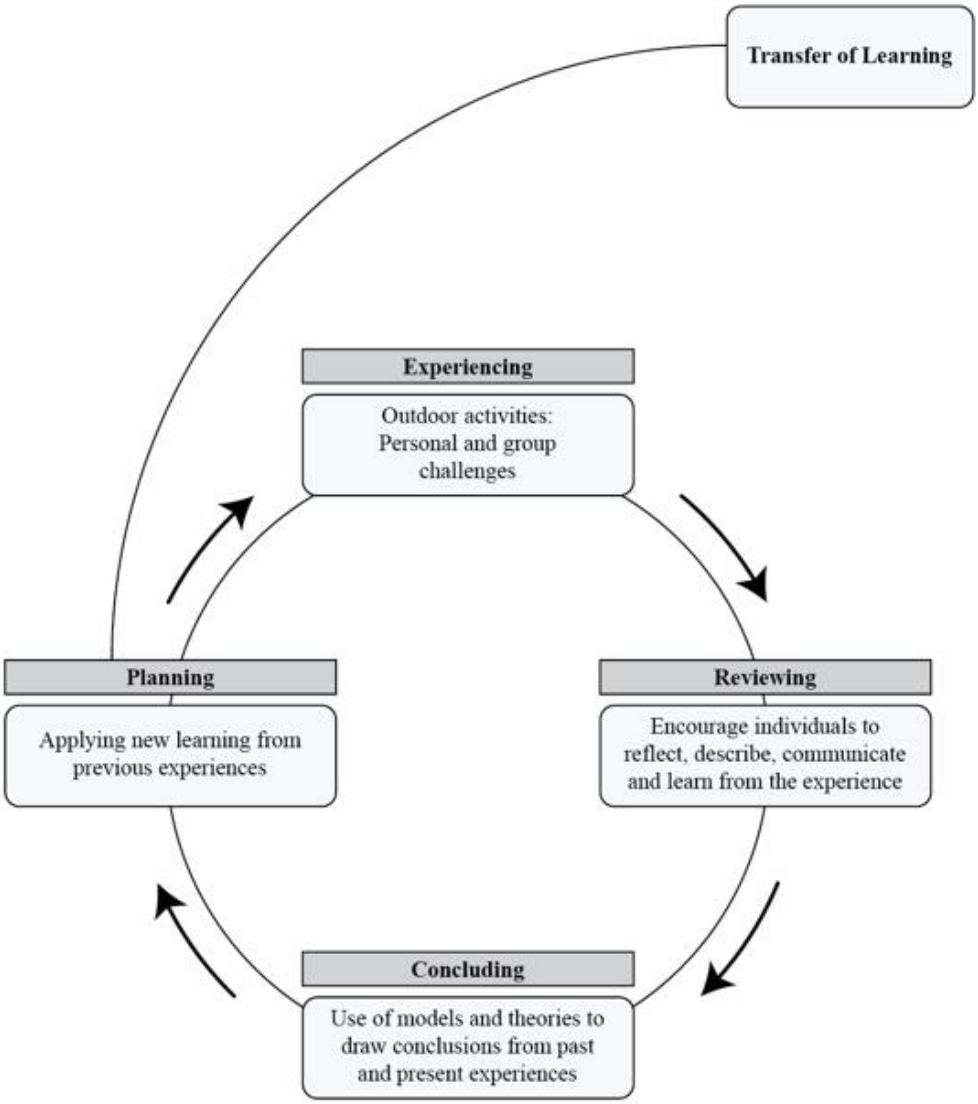
Constructivism is one of the most commonly used theories in contemporary outdoor education (Gilbertson, Bates, McLaughlin, & Ewert, 2006). Social constructivists such as John Dewey, Lev Vygotsky and Jean Piaget have influenced contemporary outdoor education with their emphasis on the importance of understanding the culture and the context of learning within the environment in which it is experienced (Denzin & Lincoln, 2011; Von Glasersfeld, 1989). Outdoor education is a social constructivist way of learning and understanding the social and physical environment through personal experience. The constructivist approach to learning implies that students come to the program with an abundance of prior knowledge, skills and experiences, which, therefore, influences their perceptions (Gilbertson et al., 2006, p. 29).

Experiential learning.

The central theory that underpins outdoor education practices is learning via direct experience (Kolb, 1984, 2007; Miles & Priest, 1999). Typically, outdoor education curriculum uses experiential learning practices as a tool to facilitate personal growth and learning outcomes (Higgins & Loynes, 1997). Experiential education is commonly known as 'learning by doing' (Ford, 1986) as all learning is through experience, even if it is not planned or learnt in a formal educational setting (Warren, Sakofs, & Hunt Jr, 1995). For deep learning and understanding to

occur from these experiences, some form of reflection must take place (Kolb, 1984; Kraft & Sakofs, 1988). Processes such as Kolb's (1984) 'Experiential Learning Cycle' or Warren, Sakofs, and Hunt's (1995) 'Action-Reflection Cycle' have provided models of teaching practice to support teachers facilitating students' reflection and understanding. Kolb's 'Experiential Learning Cycle' model uses four stages to connect the concrete experience of 'doing' with the intellectual process of abstract conceptualisation and learning transfer, through observation and reflection (see Figure 2.5).

The father of experiential education John Dewey (1859-1952) believed that education occurs as an experiential continuum which comes about through participating in quality experiences throughout one's lifetime (Dewey, 1916, 1929, 1938). Conceptually, learning is a seamless continuation of educational experiences which runs back and forth along a continuum, and therefore, experiences should not be viewed in terms of outcomes (Kolb, 1984).



Note. Sourced from Exeter (2001); adapted from Kolb (1984)

Figure 2.5. The four-stage experiential learning cycle.

Similarly, Priest and Gass (2018b, p. 42) describe a variance of the four-phases of their experiential learning cycle. Their model describes the cycle in relation to outdoor and adventure education specifically:

1. Action: referring to directly experiencing adventure activities with novel task completion and problem-solving.
2. Reflection: referring to debriefing or similar facilitation methods used to look back on the experience in order to highlight the lessons learned, identify new behaviours and clarify existing concepts.
3. Integration: referring to the phase in which the lessons learned transfer into participants' daily lives as changes in feelings, thinking or behaving. It is suggested that this phase is where transference is strengthened by the conscious use of metaphors.
4. Continuation: referring to the ability for the participant to maintain and sustain these daily life changes in the face of external forces (e.g., lack of follow-up, lack of resources, peer pressure, avoidance), and therefore reverts back to old habits, ways of thinking, ideas or emotions.

Both Priest and Gass (2018b) and Kolb's (1984) experiential learning cycles are affected by many different factors. Including the role of the social group, the effectiveness of the leader and the role of the natural environment in creating a platform for participants to be exposed to different types of challenges. The first phase of the 'Experiential Learning Cycle' (see Figure 2.5) demonstrates the process of the individual and/or the social group experiencing a challenge or

learning activity. During this phase, the widely accepted concept of 'challenge by choice' may be introduced when the participants are presented with the challenge (Priest & Gass, 2005; Wallia, 2008; Zinc, 2004). 'Challenge by choice' does not relate the 'choice' of engaging with the challenge or not, but rather, it relates to the individuals and/or the group having the 'choice' of choosing the level of challenge they are willing to commit to, as well as choosing how they are going to deal with the challenges presented (Rohnke, 1989; Wallia, 2008).

An effective outdoor leader would facilitate this process of group development by creating trust, a supportive environment and providing a safe space for participants to have the right to choose their level of engagement with the challenge (Priest & Gass, 2005; Wallia, 2008). The leader should understand how a participant is feeling and their reasons for wanting to engage more or less with the challenge. If the participant chooses not to fully engage, real alternatives should be provided (Wallia, 2008). Once group trust has been established, the leader provides guidance and choices of how to go about adapting and overcoming the challenges presented to them, empowering the participants to take control.

The second phase involves reviewing and reflecting on the experience. This process may or may not be guided by the leader. However, the leader can enhance this process by facilitating the group to observe what happened, what they did, how they felt and how it affected themselves and others (Priest & Gass, 2005). In this phase, opportunities for reflection of self, as well as opportunities to provide feedback for the social group should be provided.

In the third phase, the individual starts to draw conclusions and begins conceptualising the general principles gained from the learnings. Again, this process may be assisted by the leader to help participants draw conclusions linking to theories and models to support understanding. Leaders are important facilitators within this stage of the cycle to assist in forming new understandings about self and group interaction.

The fourth phase involves applying and practising the learnings in new environments, situations or contexts. At this final stage, it is suggested that the transference and application learning into various contexts occurs (Gass, 2003; Higgins, 1997). This four-stage experiential learning cycle draws together the process of engaging in the concrete experience, reflecting upon that experience, making connections with the experience and practising the learnings, to inform developmental changes and create new attitudes and ways of thinking (Kolb, 1984; Kraft & Sakofs, 1988).

Transfer of learning.

'Transfer of learning' refers to the effect that a particular experience has on future experiences (Gass, 1993b). Typically, outdoor education programs promote the transfer of learning as a fundamental element of programs (Brown, 2010; Priest & Gass, 2005), yet transference still remains an assumption and a concept that is misunderstood (Gass & Buell, 1986; Miles & Priest, 1999; Priest & Gass, 2005; Wolfe & Samdahl, 2005).

'Transfer literature' suggests three main factors that are responsible for facilitating the transfer of learning in participants:

1. learner characteristics,
2. intervention design and delivery, and
3. application/workplace environment (Baldwin & Ford, 1988; L. A. Burke & Hutchins, 2007).

In addition to these three factors, there are many different types of 'learning transfer' that are discussed in the literature (Baldwin & Ford, 1988; Cooley, Burns, & Cumming, 2016; Cooley, Cumming, Holland, & Burns, 2015; Sibthorp, Furman, Paisley, Gookin, & Schumann, 2011). However, the concept of transference in outdoor education has two arguments: The first argument outlines that a critical component of outdoor education programs, is that skills and knowledge learnt during the programs can be transferred into 'real life' contexts (Gass, 1995; Priest & Gass, 2005).

It is proposed that life skills learnt during outdoor education programs have the potential to transfer to various areas of a participants life, such as school, home or sport (Holman & McAvoy, 2005; Sibthorp, 2003). For example, Jim Sibthorp (2003) identified that students perceived the life skills they learnt during an outdoor education program (e.g., leadership skills, personal awareness, social skills, communication skills, tolerance and appreciation of others) have the highest probability of transferring into their lives at home compared to other hard skills learnt during the program (e.g., rock climbing, sailing and kayaking etc.).

Whereas, the second argument maintains the contrary where other researchers question the validity, lack of evidence and effectiveness of the transference of these skills and knowledge into other contexts (Brookes, 2003a,

2003b; Brown, 2010). Even though some research indicates that learning can be transferable (Hayhurst et al., 2015), there are still concerns about whether learning is context specific. For example, if the learning that takes place in the wilderness setting, there is question if the learning can be transferred and applied in different contexts such as the classroom.

Despite these conflicting views, Svinicki (2004, p. 99) suggests that there are two types of transfer that are most important when discussing skill development and the application of these skills across contexts. The first type of transfer is positive-versus-negative transfer, where positive transfer relates to the learner being able to make positive connections with the concept or skill. If this occurs positive transfer assists the learner to understand and integrate new learnings (Svinicki, 2004). A method to assist in positive transfer is metaphoric transfer, where learners make the link or connection between two situations or metaphors (Priest & Gass, 2018a). For example, positive transfer may occur when the learner understands that the leadership skills they learnt on camp can also be used when captaining their basketball team. On the other hand, if the learner is not able to make connections with the concept or skill, confusion and mistakes may occur, resulting in what is referred to as negative transfer (Svinicki, 2004). In this instance, negative transfer exists if the transference into other contexts has not occurred.

The second type of transfer is near-versus-far transfer, where near-transfer tasks, are tasks that are very much alike and follow the same sets of rules. In outdoor education literature, this is also known as specific transfer, where the

tasks learnt are highly similar (Priest & Gass, 2018a). For example, near transfer tasks may include tasks such as pitching a tent in the bush compared to pitching a tent in a back yard. Even though the learner is in a different context, the learner would be using the same set of skills and rules. On the contrary, far transfer involves tasks that follow the same rules, but do not appear to be as similar, making the transference of the learning into other contexts more difficult. Far transfer is also known as non-specific transfer, where there may be interchangeable transfer of principles and attitudes (Priest & Gass, 2018a), but it requires more cognitive thinking and understanding by the learner.

There appear to be many factors that affect the transference of learning across settings, including;

- the similarity and difference between tasks and skills;
- the association and understanding made by the learner; and
- the context and degree of prior knowledge and skill sets (Barkley, 2010).

In addition, contemporary learning theories recognise that both reinforcement and practice play a role in the development and transference of skills across settings. Researchers have suggested that reinforcement theory plays a critical role in the outdoor education process, especially when the programs are designed with the intention for personal growth and to change individuals thoughts, attitudes and behaviours (Davidson, 2016; Ewert & Davidson, 2017a, p. 58; 2017b).

Baldwin and Ford (1988, p. 63) states that “for transfer to have occurred, learned behaviour must be generalised to the job context and maintained over a

period of time on the job". In this same way, it seems that for transference to occur during outdoor education programs, the participant must learn the skill and have opportunities to practice the skill in order for it to be transferred and maintained over a period of time.

Key Elements of Outdoor Education Programs

The next section outlines four key elements that moderate experiential learning in journey style outdoor education: (a) the role of the leader, (b) the role of the natural environment, (c) the role of challenge, and (d) the role of the social group.

The role of the leader.

Due to the nature of journey style outdoor education programs, young people spend significant amounts of time with their leaders, in close proximity and at times, under stressful conditions. This allows opportunities for leaders to develop supportive environments, build caring relationships, set boundaries and expectations, and provide meaningful ways for students to engage, which are all seen to be factors capable of promoting resilience in youth (Benard, 2004; Hanson & Kim, 2007).

Leaders assume many key roles during outdoor education programs. These responsibilities range from teaching practical outdoor skills, organising logistics and managing risk, to caring directly for the student's welfare, such as delivering medical treatment, pastoral care and providing holistic well-being for their group

(Priest & Gass, 2005). Priest and Gass (2018b, p. 40) advises that such key roles also include the leader assuming the role of the:

- Translator: which helps the student interpret and reflect on experiences.
- Initiator: which engineers experiences to suit the participants' needs.
- Trainer: teaches skills and conditioning students for difficulties ahead.
- Maintainer: keeping the energy and motivation levels high.
- Authority: holding influence with the group.
- Guardian: being responsible for group safety (including, physical, social and emotional well-being).
- Exemplar: modelling behavioural patterns expected of the group.

In addition, one of the fundamental roles of leaders is to facilitate personal development and guide the experiential learning process. It is the role of the leader to choose when and how to implement the many different ways of presenting and facilitating challenges and to provide different ways of evaluating and reflecting upon them to create learning and personal development opportunities (Brown, 2002).

Outdoor education uses many different tools to facilitate the experiential learning processes of learning, reflection and the application of learning (Luckner & Nadler, 1997). Priest and Gass (2005) identified six types of facilitation techniques that are used in outdoor education practices. They refer to these as the six generations of facilitation. The first generation is called ‘letting the experience speak for itself’. Also known as ‘let the mountains speak for themselves'. This

method is most commonly used after the participant's experience, whereby the leader assumes that learning has occurred from the experience.

The second generation is known as ‘speaking for the experience’. This method relies on the leader interpreting the experience for the participants by being explicit and pointing out what they saw occurring. The third generation is called ‘debriefing’ or ‘funnelling the experience’. This technique requires the leader to ask leading questions during guided discussions to help participants reflect and learn from their experiences. The leader can choose what types of questions they ask and what techniques to apply. This includes the use of open-ended questions, closed- questions, probing questions, clarifying questions, reflective questions, example questions, encouragements, acknowledgments and appreciations (Jordan, 2007).

The fourth generation is referred to as ‘directly frontloading the experience’, also known as ‘pre-briefing’. This is one of the two most common facilitation techniques that occurs before the outdoor education experience. Frontloading involves the leader briefing the group and asking them questions before they engage in the experience. This is a beneficial technique to use when the leader is facilitating group dynamics and getting the group to focus on specific elements such as teamwork or communication. Frontloading an experience using a metaphor also affects the way the experience is processed and reflected upon by the participants (Priest & Gass, 2005).

The fifth generation of facilitation is called ‘framing the experience'. This technique requires leaders to translate the experience into real-world contexts after

the fact. Leaders can assist in the transference process by facilitating information assimilation, such as the use of metaphors or analogies to help the participants link and cognitively understand how the experience relates back to their personal lives (e.g., cognitive learning processes) (Piaget, 1964; Priest & Gass, 2018b). This type of transfer can occur in any generation which uses metaphors as a tool for learning and reflection to aid in the experiential learning process

The sixth and final generation of facilitation that a leader can choose is referred to as ‘indirectly frontloading the experience’ This technique is usually used as a last resort and is the least used technique of facilitation used by outdoor professionals (Jordan, 2007; B. Martin, Cashel, Wagstaff, & Breunig, 2006). It is generally used when frontloading, and the use of metaphors is not working with the group (Priest & Gass, 2005).

Leaders presume the role of ‘the gatekeeper’ by having control of the experiential learning process Brown (2002), where the leader facilitates the participant being actively engaged in posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative and constructing their own meaning (Association for Experiential Education, 2018). Leaders have the ability to promote and encourage the development of protective factors such as positive relationships with their participants or providing a supportive environment, which can directly impact a young person's ability to advance their resilience and coping skills (Olsson et al., 2003).

However, as leaders have a direct impact on individuals, experiences and the debriefing process, Brown (2002) called for experiential educators to "critically reflect on [their] practice with a view to exploring other avenues [rather than debrief talking circles] for facilitating learning" (Brown, 2002, p. 293). Brown (2002) also suggested that the literature should re-evaluate how power-based relationships between students and leaders are built and sustained during facilitation of outdoor education programs.

The role of the natural environment.

Outdoor education programs generally take place in natural or semi-wilderness environments away from urban areas (Priest & Gass, 2005). This provides a contrasting setting to that of an individual's daily urban life, where the built-up environment insulates people from the natural world and is often overstimulating with crowded cities, traffic, noise and constant advertising. Programs in natural environments can provide participants with opportunities for unique experiences, reflection and contemplation about their actions and feelings (D'Amato & Krasny, 2011; Kaplan & Talbot, 1983). This corresponds with the findings from the Hattie, et al. (1997) meta-analysis which examines 20 years of research on adventure programs. The study points out that "the most striking common denominator of adventure programs is that they involve doing physical things away from the person's normal environment" (Hattie et al., 1997, p. 44).

However, at present young people are spending more time living in urban areas, participating in passive indoor activities and experiencing an alarming amount of 'screen time' such as watching television, using smartphones and

playing video games (Ginsburg, 2007; Juster, Ono, & Stafford, 2004; Louv, 2013; McCurdy, Winterbottom, Mehta, & Roberts, 2010). This is no surprise as over 50% of our population lives in urbanised areas, with the number expected to rise to 70% by the year 2050 (Heilig, 2012). Coincidently, evidence highlights that urbanisation has had a negative effect on people's mental health, with the growing amount of research linking decreased exposure to nature with changes in psychological functioning (Bronzaft, 2003; Lederbogen et al., 2011).

In contrast to urbanisation, nature continues to be referenced as a tool to promote health, prevent illness and provide restorative benefits (Annerstedt & Wahrborg, 2011; Kaplan, 2001; Kaplan, 1995; Pryor, Townsend, Maller, & Field, 2006). This has highlighted an increasing need for young people to reconnect with nature and to develop human-nature relationships (Louv, 2005, 2007; Martin, 2004, 2010; Martin & Hewison, 2010). Exposure to nature has been shown to provide a myriad of cognitive, social, physical, and emotional benefits including stress relief (Hansmann, Hug, & Seeland, 2007), coping (Doucette, 2004), happiness (Howell & Passmore, 2013), knowledge transfer (Basile & Copley, 1997), self-esteem (Swarbrick et al., 2004) and skill acquisition (Fjørtoft, 2001).

D'Amato and Krasny (2011) reported that 21 out of the 23 participants evaluated after outdoor adventure education programs reported feeling many psychological benefits after spending time in nature. This included feeling a stronger sense of self, feeling more balanced, comfortable and attaining "mental quiet" (Kaplan, 1983). Because natural environments tend to be more peaceful than other environments, and they generally remove modern life distractions, such

as participation in ‘screen time' (Higgins & Loynes, 1997; Lederbogen et al., 2011), spending time in nature can result in restorative benefits and can provide more opportunities for individuals to identify internal and external assets to utilise in difficult situations (Berman, Jonides, & Kaplan, 2008). This highlights the importance of and need for youth to spend more time in the outdoors.

Natural environments provide a unique setting for outdoor education programs. It is unpredictable and can provide a sense of inspiration, wonder and awe (Burridge, 2003; D'Amato & Krasny, 2011; Darbor, Lench, Davis, & Hicks, 2016). When immersed in wilderness settings, people may experience positive emotions such as ‘awe’ and ‘wonder’, as they observe the world around them and as they try to understand their place in the world (Darbor et al., 2016). This may be caused by being submerged in a natural setting, surrounded by information-rich environmental stimuli (Darbor et al., 2016). This emotional connection with nature often leads to further thoughts and inquiry into their own feelings, thoughts and emotions, triggering them to feel calmer, more at peace with themselves and feel a sense of inner beauty (Kaplan & Talbot, 1983, p. 178).

The natural environment is also used as a tool during outdoor education programs, to provide a context for challenge which supports the experiential learning process. Being placed in an environment that is out of the normal context of one’s life, provides opportunities for participants to be challenged (Walsh & Golins, 1976). The environment creates a sense of perceived risk, fear of the unknown and situational stress (Kaplan & Talbot, 1983, p. 179). This can cause a state of disequilibrium when young people are stretched out of their ‘comfort

zones' (Fletcher & Hinkle, 2002; Luckner & Nadler, 1997; Nadler, 1995; Senninger, 2000). "Disequilibrium refers to an individual's awareness that the previous way of processing information no longer applies in this new experience" (Gass, 1993a, p. 59).

Experiencing states if disequilibrium requires individuals to mediate the perceived stress/ors, and adapt to their unfamiliar surroundings (Brown, 2008; Cross, 2002; Panicucci, 2007), resulting in short- and long-term benefits for participants (Fletcher & Hinkle, 2002; McKenzie, 2000, 2003). Therefore, creating a space for participants to apply and practice healthy new habits and effective coping strategies in a supportive environment is vital (D'Amato & Krasny, 2011).

The role of challenge.

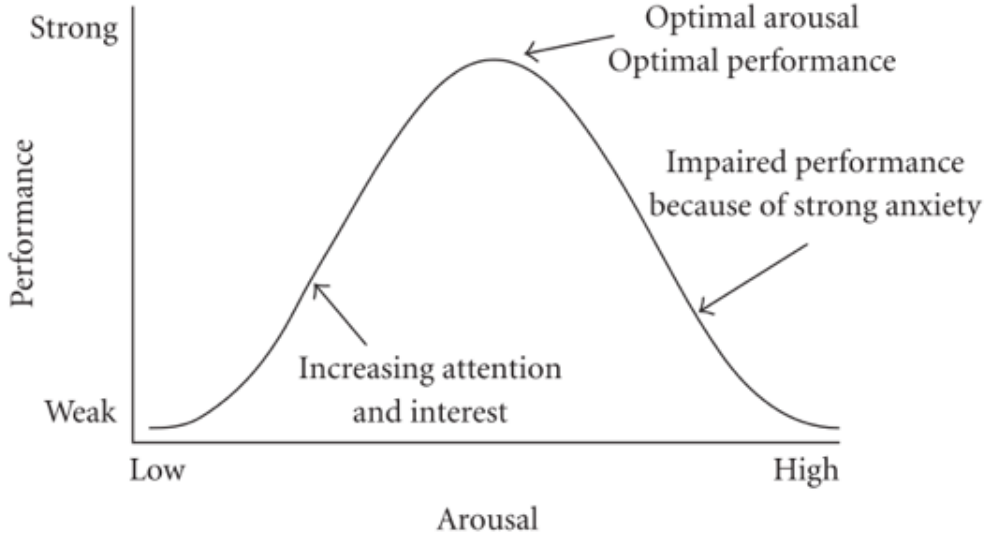
Through exposing an individual to potential risk, challenge and/or adventure during outdoor education, programs have the ability to enhance an individual's personal and interpersonal skills (McKenzie, 2000), including group development (Priest & Gass, 2005), self-esteem, self-reliance and moral character (Ewert & Garvey, 2007). The challenges that arise from participants being placed in an unfamiliar environment, away from their normal setting and through participating in new adventurous activities, allows for personal growth opportunities and for group cohesion to occur which may not be experienced in other settings, such as the classroom.

If personal growth is the intended learning outcome, it is important for programs to have an intentional focus on personal development. For instance, the

meta-analysis conducted by Marsh (1999a, 1999b), found that camp programs that had a philosophy based on personal development (0.41) had considerably stronger effects than camps that did not have personal development philosophies, demonstrating negligible effects.

During participation in outdoor education programs, people may experience different types of challenges which can vary from social, emotional, mental and physical challenges. The different physiological responses a person experiences is also relevant to the level of difficulty of the challenge (Csikszentmihalyi, 1996) and the level of arousal that is perceived by the individual (Ellis, 1973; Yerkes & Dodson, 1908).

The 'optimal arousal theory of play', (Ellis, 1973) outlines that there is a distinctive point of optimal arousal for each individual, where people may be over or under stimulated by the environment around them. The original findings of Yerkes and Dodson (1908) study indicates that there is an empirical relationship between levels of arousal and performance. This is also known as the Yerkes-Dodson law (see Figure *2.6*).



Note. Reprinted from Diamond, Campbell, Park, Halonen, and Zoladz (2007, p. 3) based on Yerkes and Dodson (1908) original relationship between performance and arousal.

Figure 2.6. Yerkes-Dodson law of optimal arousal.

Similarly, the Adventure Experience Paradigm details that when participants are exposed to an increased level of challenge, it is expected they will psychologically experience five distinct states as their degree of arousal increases in relation to the risk (i.e. the environment) and competence (i.e. the person):

1. Exploration and experimentation (low risk, high competence)
2. Adventure (competence is only marginally high than the risk)
3. Peak adventure (competence and risk levels match)
4. Misadventure (risk marginally higher than competence)
5. Devastation and disaster (competence is low, and risk is high) (Martin & Priest, 1986; Priest, 1999; Priest & Baillie, 1987).

As the Adventure Experience Paradigm theory suggests, it is the level of challenge that is the critical element in the design and implementation of outdoor

education programs (Martin, P & Priest, 1986; Priest, 1999; Priest & Baillie, 1987). An ideal situation would be for individuals to have a peak experience. The peak experience of engagement is when individuals are fully immersed, focused, and energised through engagement with the activity (Shernoff, Csikszentmihalyi, Shneider, & Shernoff, 2003). This can be conceptualised as a state of flow (Bakker, 2005; Csikszentmihalyi, 1996, 2008; Nakamura & Csikszentmihalyi, 2005). This is the realm where people can gain insights into themselves, leading to the most positive benefits of meeting a challenge (Priest & Gass, 2005, p. 46).

Overcoming challenges can lead to young people feeling a sense of accomplishment and empowerment, while also providing opportunities for personal growth such as attaining a greater sense of self-confidence. (D'Amato & Krasny, 2011; Shellman, 2009). When young people experience continual and repeated exposure to low-moderate levels of risk, they experience inoculation which in turn helps to prepare them to overcome further significant risks in the future (Fergus & Zimmerman, 2005; Werner, 2000; Windle, 2011).

Challenge is an essential factor in supporting the growth and development of resilience in participants. "Challenge cannot exist without both situational risk and personal competence engaged in an effort to resolve uncertainty" (Priest & Gass, 2018c, p. 201). This is supported by the definition of resilience and Toland and Carrigan (2011, p. 97) who states that “individuals are not considered to have displayed resilience if there has never been a significant threat to their development”. Furthermore, young people that have the opportunity to practise coping skills and become more proficient at overcoming low to moderate level

risks will be more prepared to face harder challenges in the future (Fergus & Zimmerman, 2005). Therefore, the level of challenge presented to groups should be considered as an integral part of program, intervention, curriculum and design.

The role of the social group.

Positive social relationships are key developmental assets required for a young person to be a successful contributor to society (Scales & Leffert, 2004). The social group is an aspect of outdoor education and is especially important for young people as they develop through adolescence (Jostad, Sibthorp, Pohja, & Gookin, 2015). Previous outdoor education research has provided evidence that the social group impacts student learning and potentially their entire outdoor education experience (Ewert & McAvoy, 2000; McKenzie, 2000; Sibthorp, Paisley, & Gookin, 2007). By developing positive social relationships, young people have the ability to strengthen their development of internal and external assets, and their understanding of self (Shaffer, 2005), as well as creating a sense of belonging through being part of a small community (Cross, 2002). Strong positive relationships are also shown to buffer young people from "developmental disruptions and help them to develop resilience" (Shonkoff, 2015).

A number of theorists have suggested the group size impacts participant outcomes (McKenzie, 2000; Nadler, 1993; Walsh & Golins, 1976). For instance, small-group theory suggests that the personal development of an individual should be greater because is the potential for increased opportunities for the program aims and objectives to be individualised. However, the outcomes of medium-sized

groups of more than 12 participants should be even stronger due to providing an ‘ideal’ balance between individual engagement and group diversity (Neill, 2008).

Outdoor education programs provide a platform for group interaction that is different from social group interactions that young people may experience in their everyday lives. The nature of journey style outdoor education programs means that groups are small and that the groups spend a lot of time together in a close-knit environment (e.g., eating meals together and sharing tents for sleeping). The remoteness of the setting, unfamiliar physical environment and the various challenges that participants experience focuses on the importance and influence of the group (Jostad et al., 2015). For example, D'Amato and Krasny (2011) conducted a qualitative study that examined the experiences and perceptions of 23 former outdoor education participants who were aged 15 to 24 years. The trip length ranged from 16 and 78 days, with an average of most trips running for 28 days. The study found there to be four significant factors that contributed to personal transformations and changes in behaviour post-program: (1) living in pristine nature, (2) experiencing a different lifestyle, (3) being part of the course community, and (4) dealing with the intensity and challenges of the course (D'Amato & Krasny, 2011). D'Amato and Krasny (2011, p. 246) specifically commented on the importance of being part of a “tight-knit, supportive community that helped individuals as they undertook challenges, set high standards for environmental behaviour, and facilitated learning in the outdoors”.

Contrary to the development of positive social relationships and a supportive environment, negative experiences may occur if the individual does

not develop positive social connections with the group (Jostad et al., 2015). This may result in feelings of isolation and abandonment with the potential effects on the person being detrimental and long-lasting (Goossens, 2006). Effective leaders will be able to identify the importance of group development and adjust for the factors affecting the group to support the social cohesion (Priest & Gass, 2005, p. 73).

During participation in effective outdoor education programs, students have opportunities to develop positive social relationships with their peers, teachers and other adults in contexts that are different to their daily lives (Australian Curriculum and Assessment Authority, 2012; Victorian Curriculum and Assessment Authority, 2009). Having the opportunity to build these positive relationships with themselves, others and the natural world has not only been linked to assisting students with academic achievement (Hattie, 2003), but these relationships also act as protective factors to foster resilience and resilience attributes (O'Dougherty Wright & Masten, 2015).

Outdoor Education as a Resilience and Coping Intervention

By adopting a stress inoculation approach, resilience can be developed during outdoor education programs through incremental exposure to challenging experiences which require participants to apply various coping strategies to adapt to the situation (Booth, 2015; Masten & Reed, 2002; Neill, 2008). Whilst various outdoor education studies have reported improvements in either resilience as an entire construct (Booth, 2015; Gillespie & Allen-Craig, 2009; Neill & Dias, 2001; Shellman, 2009) or increases in individual components of resilience such as self-

esteem (Cooper, 2004), social competence (Miller & Allen-Craig, 2005) and internal locus of control (Cason & Gillis, 1994; Hans, 2000; Neill & Richards, 1998).

From the year 2000 to 2016, there have been 12 international studies that have specifically investigated whether levels of psychological resilience in adolescents were affected during or after participation in outdoor education programs. An overview of these 12 studies is presented in Table 2.5. However, evidence indicates that not all outdoor education programs have positive effects on their participants (Allin & Humberstone, 2010; Brookes, 2003a, 2003b, 2004; Dewey, 1938; Neill, 1997, 2002, 2008; Skehill, 2001).

Remarkably, there is limited research investigating the impact of coping skills in outdoor education programs (Booth, 2015; Yoshino, 2008). The recent studies by (Booth, 2015) and (Yoshino, 2008), appear to be the only two studies that have investigated the effects of coping skills in outdoor education settings. Considering the direct link between coping strategies as a means for adaption and resilience capacity during stressful circumstances, it is surprising that Booth's (2015) study appears to be the only study of its kind that has examined both the development of psychological resilience and the application of specific coping strategies in the context of outdoor education programs with adolescents. While Yoshino's (2008) study measured how stress appraisal, coping response, and perceived success influenced perceived psychological growth, it did not specifically measure resilience as a construct.

Table 2.5

Summary of research on resilience and adolescents in outdoor education

Study	Place	Intervention Group	Control Group	Resilience Measure	Intervention	Results
Green, Kleiber, and Tarrant (2000)	United States	Youth at risk adolescents. Ropes course treatment group: (*M* = 11.6 years) (*n* = 25)	Youth at risk adolescents. Summer camp program comparison group: (*M* = 12.9 years) (*n* = 95) Local high school comparison group: (*M* = 12.6 years) (*n* = 57)	Adapted version of the Protective Factors Scale (Witt, Baker, & Scott, 1996).	Summer camp program compared with challenge ropes course.	**Mixed results:** Some protective factors evaluated had significant changes, such as improvements in interested and caring adults, and neighbourhood resources.
Skehill (2001)	Australia (Sydney & Melbourne)	Year 9 adolescents: (*M* = 14.3 years) (*N* = 99) (*n* = 71 male)	NIL	The Resilience Scale (Wagnild & Young, 1993) and the General Well-Being Scale derived from Mental Health Index (Veit & Ware, 1983).	Extended Stay Outdoor Education Program (ESOEP).	**No changes:** No significant increase in resilience and no reported increases in levels of well-being or decreases in distress.
Neill and Dias (2001)	Australia	University students: (*M* = 21+3.1 years) (*n* = 49)	University students: (*M* = 24+7.1 years) (*n* = 31)	The Resilience Scale (Wagnild & Young, 1993).	22-day multi-element Outward Bound programs in Australia.	**Increased resilience:** All Outward Bound participants reported positive changes in their resilience.
Buckner et al. (2005)	United States	Adolescents from a Children's Hospital Asthma Clinic: (*M* = 12.4 years) (*N* = 12) (*n* = 4 male)	NIL	Blackburn Resilience Scale (Blackburn & Satcher, 1998).	3-day residential camp. Activities: swimming, canoeing, horse-back riding, ropes, course crafts, and games.	**Increased resilience:** Increased resilience 6 weeks after the camp, however at six months the mean scores dropped back but still remained higher than baseline levels.

Table 2.5 (continued)

Study	Place	Intervention Group	Control Group	Resilience Measure	Intervention	Results
Ewert and Yoshino (2008)	United States	University students: (*M* = 20.5 years) (*n* = 17)	University students: (*M* = 20.5 years) (*n* = 20)	The Resilience Scale (Wagnild & Young, 1993).	3-week adventure based expedition.	**Mixed results:** Both groups increased resilience scores at the post-test. The control group scored higher at post-test.
Gillespie and Allen-Craig (2009)	Australia (Victoria)	Youth at risk male adolescents: Age range:14-16 (*N* = 19)	NIL	The Resilience Scale (Wagnild & Young, 1993) and the Life effectiveness questionnaire- Youth at-risk version (YARPET) (Neill, Marsh, & Richards, 2003).	5-week Wilderness Therapy Program.	**Increased resilience:** Increase in overall resilience. Individual attributes of resilience, such as meaningfulness, persistence was not reported.
Beightol, Jevertson, Gray, Carter, and Gass (2009)	Santa Fe, New Mexico.	Grade 5 students: (*n* = 51 (*n* = 26 male)	Grade 5 students: (*n* = 54) (*n* = 29 male)	Anti-Bullying Initiative Survey (Carter & Jevertson, 2006).	3-days of high ropes and 10 problem-solving and role pay sessions in school.	**Mixed results:** Males had no change, females increased in resilience attributes, such self-efficacy, and goals and aspirations.
Shellman (2009)	United States	Outward Bound course participants: (*n* = 86) Age range:14-30 (*M* = 17.3 years)	University students: (*n* = 69) Age range:14-30 (*M* = 20.1 years)	The Resilience Scale (Wagnild & Young, 1993), The Empowerment Scale adapted from (Spreitzer, 1995), the Characteristics of the Experience Scale (CES-I and CES-II) adapted from (Sibthorp, 2000) and semi-structured interviews.	14- to 30-day Outward Bound expedition.	**Increased resilience:** A significant positive increase in both psychological empowerment and resilience was found for the Outward-Bound group. No significant differences were obtained for the comparison group.

Table 2.5 (continued)

Study	Place	Intervention Group	Control Group	Resilience Measure	Intervention	Results
Ewert and Yoshino (2011)	United States	University students: (*n* = 28)	University students: (*n* = 27)	37-item self-report instrument derived from the Resilience Scale (Wagnild & Young, 1993), Ego-Resiliency (Block & Kremen, 1996), and the Connor-Davidson Resilience Scale (Connor & Davidson, 2003).	3-week adventure based expedition including 3-day solo.	**Mixed results:** Treatment group increased resilience significantly, but the control group had a higher level of resilience pre- and post-test.
Hayhurst, Hunter, Kafka, and Boyes (2015)	New Zealand	Study 1: Trainee students (*n* = 126) (*M* = 16.55 years)	University students: (*n* = 63) (*M* = 16.55 years)	The Resilience Scale (Neill & Dias, 2001; Wagnild & Young, 1993) 15 item version.	Study 1: 10-day developmental sailing voyage.	**Increased resilience:** Study 1 Results: Increased levels of resilience over the course of the voyage.
		Study 2: Trainee students (*n* = 146) (*M* = 16.51 years)	High school students: (*n* = 74) (*M* = 16.43 years)	The Resilience Scale (Neill & Dias, 2001; Wagnild & Young, 1993) 15 item version.	Study 2: 10-day developmental sailing voyage.	Study 2 Results: The increased levels of resilience were maintained five months following the voyage.
Booth (2015)	Australia	Year 10 students: (*N* = 49) (*n* = 24 male) (*n* =25 female)	NIL	The Brief Resilience Scale (Smith et al., 2008), adapted version of the 60-item COPE Inventory (Carver, Scheier, & Weintraub, 1989) and semi-structured interviews.	12 day Outward Bound expedition.	**Increased resilience:** Small significant increase in resilience scores. Positive correlations between higher levels of resilience and the application of coping skills.
Davidson (2016)	United States	Outward Bound course participants: (*N* = 350) Age range: 12-22 years	NIL	The Resilience Scales for Children and Adolescents (Prince-Embury, 2008) and the Grit Inventory (Duckworth & Quinn, 2009).	Outward Bound expeditions ranging from 5 days to 21 days.	**Increased resilience:** Positively increased levels of grit and resilience.

The study conducted by Neill and Dias (2001) used the Resilience Scale to measure increased levels of resilience after participation in a 22-day multi-element journey style outdoor education program with Outward Bound in Australia. The study used two groups; the experimental group *(N* = 49 and the control group (*N* = 31) which consisted of young adults. While the study demonstrated strength by using a comparison group, one of the limitations of the study was its small sample size.

Neill and Dias (2001) used a mixed design ANOVA for both the experimental and control groups. Using the 15-item version of the original 25 item Resilience Scale (Wagnild & Young, 1993), the author reported that all participants showed positive changes in their resilience and their overall change in effect size was very large. The data revealed a significant interaction between time and group, where the experimental group (F (1,68) = 6.39, p = .01) reported a greater change in resilience compared to the control group. An interaction between time, group and gender was also reported which indicated that the changes in resilience was consistent across gender (F (2,68) = 1.86, p = .16) (Neill & Dias, 2001).

Another program that used challenging expedition type experiences to enhance levels of resilience was the Gillespie and Allen-Craig (2009) study on at-risk male adolescents. This study also used a smaller 15-item version of the Resilience Scale to measure changes in resilience scores after participation in a five-week wilderness therapy program. The study indicated a moderate to large positive effect size of resilience scores (ES =0.60). The results demonstrate that

participation in the wilderness therapy program did help youth at-risk increase their resilience.

A more recent study by Ewert and Yoshino (2011) also supports the notion that outdoor education programs enhance levels of resilience. Their study used a mix of the Resilience Scale (Wagnild & Young, 1993), Ego-Resiliency (Block & Kremen, 1996), and the Connor-Davidson Resilience Scale (Connor & Davidson, 2003) to make up a 37-item questionnaire to measure changes in resilience scores in university students who participated in a 3-week adventure-based expedition. Based on their results, the authors suggested that short-term expeditions may enhance participants levels of resilience (Ewert & Yoshino, 2011).

There is however, contradictory evidence that indicates that not all studies that have investigated in the impacts of outdoor education programs on levels of resilience and coping have had positive effects (Sheard & Golby, 2006; Skehill, 2001). Skehill's (2001) similar study that used the 15-item version of Resilience Scale to measure resilience levels in Year 9 adolescents, during an Extended Stay Outdoor Education Program, reported no significant increase in resilience, as well as no reported increases in well-being or in the reduction of distress in participants.

Whilst some studies support the belief that outdoor education programs do in fact enhance psychological resilience (Buckner et al., 2005; Gillespie & Allen-Craig, 2009; Hayhurst et al., 2015; Neill & Dias, 2001), Table 2.5 still demonstrates the lack of consistency in results to draw this conclusion (Beightol et al., 2009; Ewert & Yoshino, 2008, 2011; Green, Kleiber, & Tarrant, 2000).

Findings, as set out in Table 2.5 show that there is the potential for outdoor educations programs to be an effective approach to increase resilience and effective coping skills. Nevertheless, the table identifies that more research and evaluation is needed to understand the psychological and social processes of outdoor education (Burke & Collins, 2004; Burridge, 2003; Neill & Richards, 1998).

Chapter Summary

The review of literature in this chapter has explored the four key themes of this research; adolescents, resilience, coping and outdoor education. These elements provide the background for examining how outdoor education programs can be used as an effective approach to develop resilience attributes and coping skills in young people.

Initially, this review provided an overview of adolescence. This critical stage of human development that occurs between childhood and adulthood involves young people developing physically, socially and emotionally. In addition, young people are cognitively developing, and as their brains continue to mature they develop the capacity for formal operation thinking. This cognitive capacity allows them to think abstractly, self-reflect and take ownership of their actions and decisions. Even though young people experience many changes and challenges as they transition from being children to adults, and while some may experience turmoil, adolescence provides a period of opportunity for positive growth and learning.

Existing data reveals a large number of young people reported having experienced serious mental health issues during adolescence (Australian Institute of Health and Welfare, 2016; Bullot et al., 2017; Lawrence et al., 2015; The Department of Health). Young people who are undergoing these mental health problems are often feeling low self-esteem, increased social pressures of the 21st century and pressures to conform to unrealistic expectations, with the main contributing factors being violence, abuse, neglect, and bullying (UNICEF, 2011). Assisting young people to develop positive human characteristics, such as self-efficacy, self-esteem, resilience and coping skills, can minimise the risk and severity of adverse mental health conditions that may be developed during this vital developmental period.

The chapter then outlines the issues and difficulties in researchers agreeing on defining resilience as either a trait (individual level) or as a dynamic process (systems level). Consequently, to clarify the definition of resilience in relation to this research, resilience is conceptualised as the capacity of an individual to utilise their internal and external supportive systems to positively adapt to adversity, whilst maintaining and sustaining their personal well-being.

Resilience is the result of an individual's ability interact with their environment (i.e. mirco-, meso-, exo- and macro-systems.) to assist them in promoting or maintaining their well-being, protecting them from risk factors and helping them to be able to cope with adverse or challenging situations. The development of a young person is the direct result of the relationships and interactions of between themselves and their environments.

An individual's resilience capacity is composed of numerous factors that cumulatively attribute to their ability to cope with difficulties. Protective factors and processes, also known as developmental assets, such as developing positive, supportive relationships with peers and teachers and developing positive self-concept are crucial in the development of an individual's resilience and can bolster their ability to use effective coping methods. Ultimately, developmental assets can assist young people in coping with a variety of stress levels and types of challenges.

Resilience is not rare, in fact, it is a capacity that can be seen and utilised by most individuals. The skills and factors that make up a resilient individual are not necessarily inherent; they can be fostered, learned and developed. Therefore, supporting the development of internal and external assets is crucial for the future success of young people and their capacity to live an optimal level of human functioning. Young people who have assimilated developmental assets are more likely to positively adapt to adversity and have a higher chance of coping with challenges and perceived stress.

Following a review of the psychometric properties of existing instruments and literature, the Resilience Scale and the Brief COPE Scale were deemed to have the best reliability and validity to measure resilience and coping with young people, within an outdoor education setting. As demonstrated above, this research is timely in nature as it will become part of the current discourse about the importance of developing resilience in youth through Australian school systems

by using outdoor education programs as a platform for facilitate personal development (Passarelli et al., 2010).

Finally, this chapter presented research promoting journey style outdoor education programs as an effective approach to enhance resilience, resilience attributes and coping skills through using stress inoculation and experiential learning models. The role of the leader, the natural environment, challenge and the role of the social group are presented as four critical elements of the outdoor education process that occurs during journey style programs.

As journey style programs are of an extended length, they provide participants with the opportunities to be consistently exposed to stressors or challenges that require the application of coping skills to overcome the stress or achieve desired goals (Davidson, 2016). The length of the program allows more opportunities for participants to practice and develop assets over the duration of the program.

Leaders also play a critical role in this process as they guide the participant through reflection and experiential learning processes, which are pivotal to these types of programs. As Grümme (2011, p. 114) advocates “without conscious reflection, no experience is gained; events remain but events”. Therefore, an individual’s experience may be accordingly influenced by the effectiveness and facilitation methods used by the leader.

Previous research evidence indicates that journey style outdoor education programs do enhance resilience (Davidson, 2016; Gillespie & Allen-Craig, 2009; Hayhurst et al., 2015; Neill & Dias, 2001) and that there is potential for outdoor

educations programs to be used as an effective tool to increase both resilience and coping skills (Booth, 2015; Cooper, 2004; Miller & Allen-Craig, 2005; Yoshino, 2008). However, other studies present conclusions that not all outdoor education programs have significant positive effects on their participants (Allin & Humberstone, 2010; Brookes, 2003a, 2003b, 2004; Neill, 1997, 2002, 2008; Sheard & Golby, 2006; Skehill, 2001). The lack of continuity in results reinforces that further research is required to investigate which particular attributes of resilience and coping skills are strengthened by outdoor education programs (Neill, 2001; Neill & Richards, 1998). Furthermore, supporting evidence is lacking on how resilience and coping skills can be best developed, enhanced, and transferred into the everyday lives of young people (Ahern et al., 2008; Booth, 2015; Neill & Dias, 2001; Neill & Richards, 1998).

The primary purpose of this literature review was to provide a current and comprehensive review of the core concepts of this research. The review identified gaps in the research and provided an analysis of methods used in past research that aimed to identify levels of resilience and coping in adolescents within an outdoor education setting. Based on the research and findings considered in this chapter, it is logical to assume that exposure to challenging experiences during outdoor education programs will enhance participants' capacity for adaptation, and therefore, increase levels of resilience and strengthen their repertoire of coping skills. This chapter provided the basis for the next chapter which outlines the methods selected and subsequently applied in this study.

CHAPTER 3: METHODS

'Outdoor education fits comfortably under the school's vision statement of providing for the 'academic, physical, emotional, psychological, social and spiritual dimensions of student life'

– Yarra College Statement

Figure 3.1. Watching the sunrise.

Firstly, this chapter introduces the research paradigm and explains the connection between the research questions and the methodological approach. A pragmatic paradigm was used to capture the phenomena of an outdoor education program's potential influence on young people's resilience and coping skills. The chapter then provides an overview of the sample selection, the outdoor education program and the methods applied throughout the study.

The data collection process is presented next, detailing the three phases of data collection and analysis. Data was collected via three separate means; pre- and post-surveys, program observations and participant interviews. Phase I outlines the administration of the survey instruments and the subsequent analysis of the data.

Phase II describes the collection and analysis of observations made during the outdoor education program and Phase III details how participant interviews were conducted and how themes were explored. The chapter concludes with an overview of the ethical issues and considerations of the research.

In Chapter 2, the literature review provided evidence that outdoor education programs are promoted as an efficient method for strengthening resilience and coping skills (Allen-Craig & Miller, 2007; Cooper, 2004; Neill, 2008). However, as Neill and Dias (2001) alluded, it is unclear which attributes are strengthened through participation in outdoor education programs.

The overarching aim of this research is to investigate if resilience is context specific. The research aims to identify the particular attributes of resilience and coping that are strengthened through participation in an outdoor education program and examine whether these attributes are transferred into other contexts of their school lives. The study also investigates how resilience and coping can be best supported, developed and transferred into other contexts. The four research questions that this study aims to address are:

Research Question 1

Which attributes of resilience and coping are enhanced through participation in an extended secondary school outdoor education program?

Research Question 2

If attributes were enhanced, what supported and fostered the development of these resilience attributes and coping skills?

Research Question 3

If attributes were enhanced, what attributes of resilience and coping were transferred and applied in contexts other than an outdoor education setting?

Research Question 4

How can resilience and coping skills be best developed and transferred into other contexts of learning?

This chapter is separated into the following sections: (a) research paradigm; (b) sample selection; (c) outdoor education program; (d) data collection process; (e) Phase I; (f) Phase II; (g) Phase III; and (h) ethical issues and considerations. The structure corresponds to the research process developed for this study which is presented in the flowchart in Figure *3.2*.

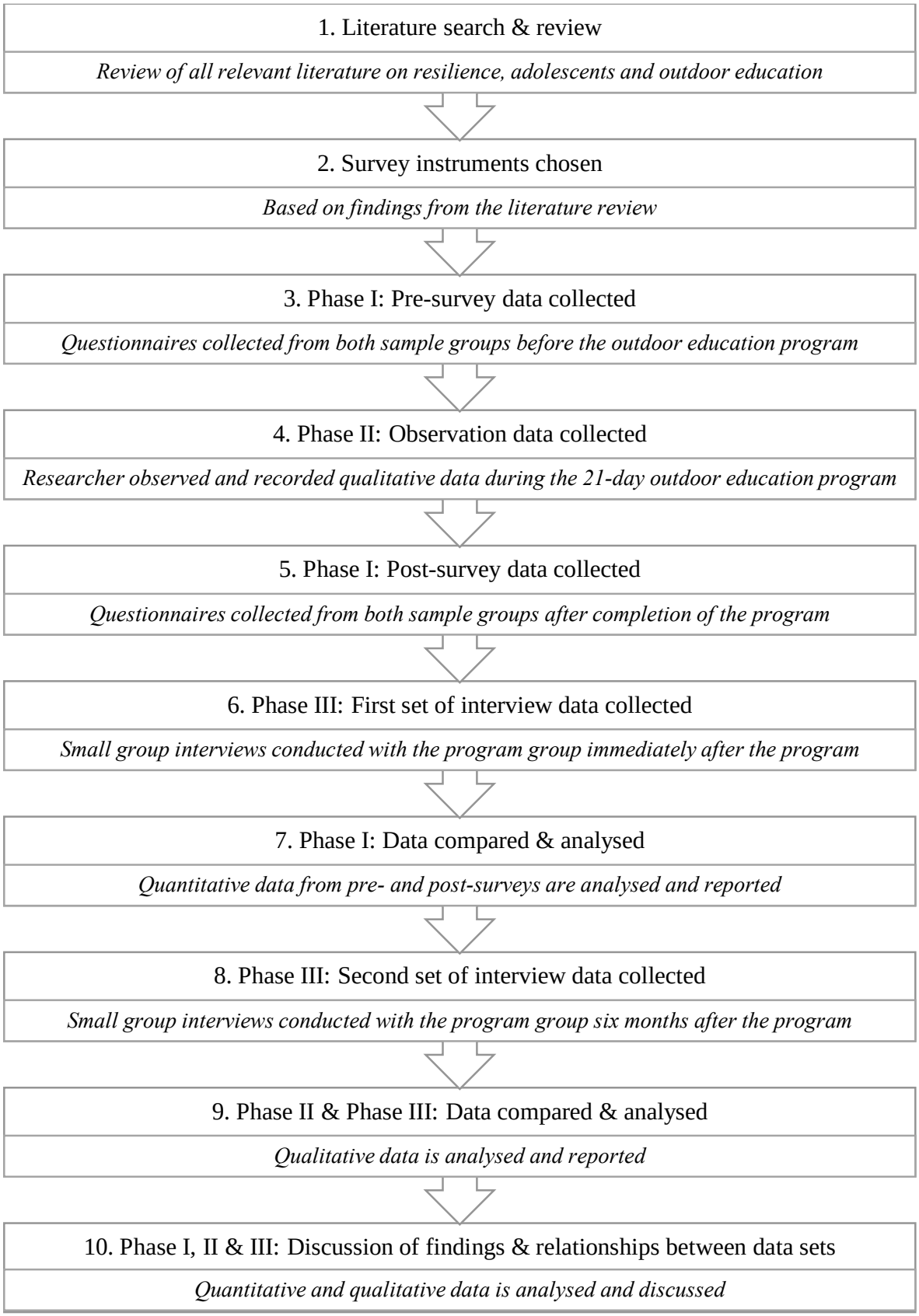


Figure 3.2. Research process flowchart.

Research Paradigm

In deciding the theory underlying this thesis, in the context of outdoor education and human research, the researcher endeavoured to find appropriate measures between the subject area and her personal philosophies (Allen, 1994). Due to the complexities of studying the development of resilience and coping in young people who are participating in outdoor adventure education activities, a mixed methods approach was utilised to quantify the outdoor education program outcomes and qualify the participants' rich meanings of the experience. It was therefore, deemed appropriate to use a pragmatic approach (Brantlinger, Klingner, Richardson, & Taylor, 2005; Creswell, Plano Clark, Gutmann, & Hanson, 2003; Ihuah & Eaton, 2013; Onwuegbuzie, Johnson, & Collins, 2009).

The pragmatist approach was chosen for this research as it utilises both qualitative and quantitative methods for data collection (Creswell, 2013; Ihuah & Eaton, 2013) and thus has the capacity to explore the four research questions. By utilising both subjective and objective reasoning, this approach allows the statistics from the survey data in Phase I to play a fundamental role in interpreting and giving meaning to the observation data from Phase II and the interview data from Phase III of the research.

This approach uses a variety of data collection and analysis techniques to assist with interpreting two separate styles of data. The data was collected concurrently with an aim to answer the research questions by forming conclusive meanings and confirming findings. This was achieved by comparing the survey data, observation data and interview data (Creswell, 2013; Creswell et al., 2003).

In this research, the pragmatist approach combines two paradigms: post-positivist theory to analyse the quantitative data, and constructivist theory to analyse the qualitative data. Using these two approaches helps to strengthen the findings of both methods as it acknowledges that human experiences are complex and benefit from multiple forms of analysis (Guba & Lincoln, 1988a). It allows the survey data to be examined from both a scientific inquiry that emphasises a structured, singular stance and by considering qualitative data from a constructivist approach that focuses on understanding the phenomena from the participants' perspective (Guba & Lincoln, 1988a).

Post-Positivist Paradigm

Based on previous literature, it was hypothesised that participation in the outdoor education intervention would affect the development of participants' resilience and coping attributes (Cooper, 2004; Miller & Allen-Craig, 2005; Neill, 2008). To answer the first research question, survey data was collected to indicate any statistical changes in participants' resilience and coping scores. A post-positivist paradigm was used to analyse the survey data as this approach uses systematic, controlled and empirical methods (Ryan, 2006; Wildemuth, 1993). Within this paradigm, a quasi-scientific approach was used to identify changes in levels of resilience and coping by comparing the program group and control group participants. The quasi-scientific approach acknowledges that with human research there are many variables that cannot be accounted for in the same way that mathematical or laboratory scientific research can be controlled (Guba & Lincoln, 1988c).

The purpose of Phase I was to measure and compare the participants' resilience and coping scores pre-program and post-program to establish whether the outdoor education program affected the participants' levels of resilience and coping skills. Using the computer-based Statistical Package for the Social Sciences (SPSS) version 22 allowed the researcher to critically investigate the survey data and assess how attributes of resilience and coping were affected by participation in an outdoor education program (Ryan, 2006; Wildemuth, 1993).

To identify participants' self-reported changes in resilience and coping, the researcher distributed the surveys across a larger sample size compared to using only small group interviews. Using surveys may be less subjective as they have the ability to obtain larger sets of data across sample groups, whereas small group interviews provide a limited number of responses. Implementation of the surveys also allowed the researcher to remain external and independent from Phase I of the study (Ihuah & Eaton, 2013). A point of comparison was provided by having one group that experienced the outdoor education program, and one group that did not. Statistical findings from the survey data also identified the creation of new knowledge, understanding of the program, and gave further meaning to the interview data in Phase III (Ryan, 2006).

The pre- and post-survey data identified changes that occurred to participants through their experiences in the 'City to Summit' program. However, on its own, this data does not give insights into why the observed changes occurred. For this reason, a constructivist paradigm was utilised to better

understand the changes in survey data from the participants' and the researcher's perspectives.

Constructivist Paradigm

The foundation of outdoor education is facilitating learning through the reflection of personal experiences in the social and natural world (Allan et al., 2012; McKenzie, 2000), therefore, taking a constructivist approach to researching outcomes of outdoor education experiences enables understanding of the phenomena from the participants' point of view (Savery & Duffy, 1995, 2001). It allows them to explain their personal insights and describe how these experiences have influenced their understandings of their own resilience and coping strategies.

Naturalistic inquiry was the constructivist approach selected, which enabled the researcher to be immersed in the research setting as an assistant on the program. In addition, as a professional outdoor educator, the researcher had a deep understanding of outdoor education and program design. The researcher's professional prior knowledge and experience supported immersion into the outdoor setting, while her role as the assistant group leader allowed for the adoption of an insider's view of the program without becoming a member of the observed group (Guba & Lincoln, 1988a).

The naturalistic inquiry approach promoted understanding of the complex nature of experiences from the participants' point of view. It also enhanced an understanding of how the construct of resilience and coping may be affected by participating in an outdoor education program. This was achieved through an open and exploratory view during the small group interviews (Guba & Lincoln, 1988a,

1988c). During interviews, participants were able to expand upon their self-identified changes in coping and resilience, which allowed for rich descriptions of their experience and explanations of possible links to the changes identified. The insights from the participants gave meaning to the results of the survey data and strengthened the research analysis process.

Savery and Duffy's (1995, 2001) constructivist philosophy informed the identification process of the relationships between the participant's experiences during the extended journey style outdoor education program, and the development of their understandings. The following three aspects of their philosophy were used to inform and guide the qualitative data analysis process by understanding that:

1. Our interactions with the environment can impact our construction of knowledge and affect our personal awareness or understandings;
2. Cognitive conflict or puzzlement is the stimulus for learning and determines the organisation and nature of what is learned; and
3. Knowledge evolves through social negotiation and through the evaluation of the viability of individual understandings (Savery & Duffy, 1995, 2001).

Chapter 5 discusses the key themes, concepts and findings of Phase II and Phase III data, and considers the data and theory associated with research questions two, three and four.

Sample Selection

Selection of Schools

A broad range of Australian schools across the state of Victoria was examined to see which schools matched the selection criteria as outlined in Table 3.1. Sixteen Victorian schools were identified and were approached to participate in this study. Two private boys' schools from Melbourne, Victoria matched the research selection criteria and agreed to take part in this study (see Table 3.1).[1] The first school has been given the pseudonym Yarra College and will be referred to as the program group throughout this research. Yarra College was chosen because it matched the selection criteria, and because the outdoor education program is a compulsory for their entire Year 10 cohort. Specifically, this Year 10 cohort participated in an extended journey-style outdoor education program, which focused on the personal growth of students**,** including the development of resilience and coping skills. The extended length of the outdoor education program on offer and the potentially large sample size were also reasons for its selection. The second school, referred to by the pseudonym Beachside College, served as the control group throughout this research. Beachside College also matched the selection criteria but did not offer any outdoor education programs to their Year 10 cohort. This sample group was chosen to provide the comparison data set in the study.

[1] Private schools in Melbourne are non-government schools. Along with government schools, these schools all follow the Australian Curriculum, Assessment and Reporting Authority. (ACARA). However, the non-government schools may be governed by a Catholic, private or independent organisation.

Table 3.1

Sample selection criteria and results for both sample groups

Selection Criteria	Yarra College	Beachside College
Sample groups must be sourced from Victorian secondary schools	School Location: Melbourne, Victoria	School Location: Melbourne, Victoria
Schools must be sourced from the same school sector	Non-government, Private Boys School	Non-government, Private Boys School
Schools must provide a secondary school education	Junior and secondary	Secondary only
Sample groups are of a similar age and gender	Year 10 all boys cohort	Year 10 all boys cohort
Secondary school size and size of year levels must be similar	Enrolments in 2012: 798 (For Junior and Secondary) Year Level size: Between 150-200 boys	Enrolments in 2012: 492 (For Secondary only) Year Level size: Between 80-100 boys
Sample Groups have similarities of societal demographics	See Table 3.2 for details	See Table 3.2 for details
Delivers similar school curriculum	Follows the Australian Curriculum, Assessment and Reporting Authority (ACARA)	Follows the Australian Curriculum, Assessment and Reporting Authority (ACARA)
Similar school focus	Educating the whole person, school values and life skills.	Educating the whole person, school values and life skills.
Similar curriculum offerings for outdoor education	Compulsory outdoor education program from Prep to Year 12	Compulsory outdoor education program from Year 7 to Year 9
One sample group offers an extended journey style outdoor education program to Year 10 cohort	Delivers a compulsory 21-day outdoor education program (‘City to Summit’)	No outdoor education offered to the Year 10 cohort

Note. Information presented in this table was provided by the sample groups themselves

As Table 3.1 demonstrates, both sample groups were sourced from private boys' schools which are based in inner-city Melbourne. The Index of Community Socio-Educational Advantage (ICSEA) has been reported for each school. ICSEA is a scale of socio-educational advantage, which provides a comparison of the two schools that have very similar demographics as far as social, cultural and school environments. Each school's ICSEA values are calculated on a scale which has a median of 1000 and a standard deviation of 100. ICSEA values typically range from approximately 500, which represents schools that have students who are classified as coming from extremely educationally disadvantaged backgrounds to a score of approximately 1300, which represents schools with students with very educationally advantaged backgrounds. Schools rating over 1000 on the scale are considered to have students with educationally advantaged backgrounds (Australian Curriculum and Assessment Authority, 2015).

Similarities and differences in the socio-educational factors for both schools are outlined in Table 3.2. These key factors are based on a student's family background such as their parents' occupation, and school or non-school education. These factors are pertinent because they may influence the students' educational outcomes at school. The school's geographical location and the proportion of non-English speaking and Indigenous students are also considered when determining their level of educational advantage or disadvantage (Australian Curriculum and Assessment Authority, 2015).

Table 3.2 shows that both schools are classified as having students from socio-educational advantaged backgrounds, as their ICSEA ratings are over 1000

(Yarra College: 1187; Beachside: 1078) and of similar median values. The main difference between the schools is that Beachside does not have a Junior School program and only runs compulsory outdoor education programs during Year 7 to Year 9. Their Year 10 cohort does not participate in any organised outdoor education at school during their Year 10 studies. Due to the high number of similarities between the schools, and the fact that the control group did not participate in any outdoor education programs, Beachside College provides a suitable comparison with Yarra College.

Table 3.2

Socio-educational rating factors for both private boys' schools

Factor	Yarra College	Beachside College
School sector	Non-government	Non-government
School type	Junior and secondary	Secondary only
Location	Metropolitan	Metropolitan
Total enrolments	798	492
School ICSEA value	1187	1078
Indigenous students	1%	0%
Student attendance rate	91%	97%
Whole school curriculum	ACARA	ACARA
Religion	Anglican	Catholic
Language background other than English	27%	41%

Note. Data presented in this table is retrieved from Australian Curriculum and Assessment Authority (2012)

Participants

The sample for this study was comprised of two groups: the program group and the control group (N = 300). Participants in both groups were Year 10 boys who were aged between 14 and 17 years. The researcher presented information about this study to Yarra College's students and parents at the 'City to Summit' program information night held at the school. Detailed research information and consent forms for 'City to Summit' were distributed to both parents and students. Originally, all Year 10 students (n = 200) from the program group agreed to take part in Phase I of the study. All participants in the observation group gave consent for photographs to be published (see Appendix V). This high rate of returned signed consent forms for participation in Phase I,

may have been due to the fact that participation in ‘City to Summit’ is compulsory for the program group. Therefore, most documentation regarding ‘City to Summit’ is signed and returned by participants.

There were only 20 Year 10 boys from the program group (n = 200) who consented to participate in both the questionnaires in Phase I and the small group interviews in Phase III. These 20 participants from different activity groups were invited to participate in the small group semi-structured interviews immediately post-trip and six months after the completion of ‘City to Summit’. However, two participants did not attend the small group interviews, therefore, bringing the total number of participants to eighteen for Phase III.

During Phase I, all participants were given an opportunity to complete the same questionnaires at Time 1 (T1) and Time 2 (T2). Initially, a smaller number of students from the program group (n = 95) completed the questionnaires at T1. However, at T2 the numbers of students completing questionnaires increased (n = 154) (see Table 3.3). The final number of completed questionnaires for the program group was 69. This number was reduced due to a high number of incomplete questionnaires and questionnaire data that did not match at T1 and T2 (refer to Table 3.3).

The entire Year 10 cohort (n = 100) from the control group were offered to participate in Phase I section of the study. Students and parents were supplied with written information and consent forms, which outlined the research in detail and the potential risks involved. The control group did not participate in any outdoor education experiences during their Year 10 studies at school as the school

did not offer any program options. However, it should be noted that the school does have a compulsory outdoor education program which runs from Year 7 to Year 9.

Table 3.3

Number of participants who completed the questionnaire data

	Time 1 (T1)	Time 2 (T2)	Matched results from T1 & T2	Number of participants removed	Final participants included
Group	*n*	*n*	*n*	*n*	*n*
Program group	95	154	73	4*	69
Control group	62	67	50	8*	42

Note. * = Number of participants removed from study due to 10% or more of the questionnaire being unanswered.

Outdoor Education Program

Overview

As part of the school curriculum, participants from Yarra College take part in a sequential, compulsory outdoor education program which operates from Prep to Year 12. Their outdoor education program design ensures that students in Years 7 to 10 are exposed to more challenging and complex outdoor activities as they progress through the year levels to the culmination outdoor education experience, 'City to Summit'.

The Principal of Yarra College (2012) provided a summary of the aims and attributes that the school perceives to be crucial in the development of young people on their path towards adulthood through participation in outdoor education programs:

1. The outdoor education program presents challenges.
2. Builds aspects of leadership training.
3. Builds perseverance, resilience and teamwork skills.
4. Promotes an appreciation of the importance of the natural world.

Along with other aims and outcomes specific to each year level's school curriculum, the program's length increases each year and the outdoor activities become more challenging and complex as students' progress through the year levels. All scheduled activities are considered to be well within the capabilities of every student and the staff representatives from the school.

Being progressive in nature, the programs are designed to prepare the boys with skills and experiences required for their culminating flagship experience in the Year 10 'City to Summit' program. The Principal of Yarra College has identified that:

> *"[m]any (of the Year 10 students') lack clear goals for academic study, at a time when both positive and negative peer-related influences grow very strong in their lives. Some boys merely 'tread water' and become disengaged in the educative process. My hope is that the 'City to Summit' program will positively address such issues. I am excited by the opportunity, the learning experiences*

and the transferability of skills which will emerge from the unique program" (Yarra College Documentation, 2015).

'City to Summit' Outdoor Education Program

In Term IV 2012, the program group took part in 'City to Summit'. The intervention is a compulsory, extended, journey-style outdoor education program and is regarded as an integral part of the leadership, pastoral, personal development and community service programs at the Yarra College. The program was presented as an opportunity for students to challenge themselves and understand their capacities in responding to these challenges, take risks, learn new skills, to work together with their teammates and strengthen their developmental assets. During the program participants' will experience:

- A wilderness environment.
- A variety of 'hard' and 'soft' skill-learning experiences.
- Relative isolation from the comfort zone of family and school.
- A reflective personal and group experience.
- A celebration of the journey upon their return to school

(Yarra College Documentation, 2015).

An external not-for-profit outdoor education company was assigned to coordinate the three-week program. Groups travelled from outside their school gates in Melbourne and continued for 21 days until they reached the highest peak in Australia, Mt Kosciusko, which stands at 2,228m above sea level. The cohort of 200 Year 10 boys were divided into 17 smaller groups consisting of 12-14 participants, a group leader, a teacher or school staff representative and an

adventure activity specialist. Two groups left at the same time following different routes that paralleled one another. Two days later, another two groups departed. This process continued until all 17 groups had embarked on the 'City to Summit' program (see Appendix M for the Program Schedule and Outline).

The boys were required to use a range of challenging adventure activities, such as hiking, whitewater rafting and mountain biking as modes of transport to reach their final destination. With the aim of building personal and interpersonal skills, City to Summit's program design also included group development activities, outdoor living and travel skills, initiative tasks, reflection, and individual and group feedback sessions. These curriculum elements occurred sporadically throughout the program. Through participation in 'City to Summit', it is proposed that participants will naturally develop the inherent practical skills of outdoor education, such as camp craft, camp hygiene, navigation, bush safety, and activity-specific tasks.

Set out by Yarra College, the six guiding principles that bind the 21 day outdoor learning experience are as follows:

Journey: Exploring the concept of journey and all that it entails. This includes the willingness to take risks, make decisions and live with the consequences. A journey is personal and continuous. It involves travelling to 'hard places' outside of our comfort zones whilst holding the emotional, social, physical and spiritual dimensions of our person together.

Discovery: To search, explore, discover, learn and grow. Insightful observations for the actions, events, phenomena, people, stories and places we do

not know or have not yet heard. Transforming these observations into new ways of thinking and being.

Identity: What does it mean to be me? Who I am and who I aspire to be. To explore one's personality in the context of social and cultural identity as a young male growing up in a rapidly changing society. 'City to Summit' provides an opportunity to explore notions around identity and masculinity in an environment free from media influence and some of the subsequent conflicting and contradictory messaging. This provides the opportunity for some reflection and thinking free from these often persuasive societal elements.

Spirit: "The non-quantifiable energy present in all living things"- Anonymous. The holistic connection between mind, body and soul as represented by the notion of the whole person entity. Taking this entity and exploring the connection with self, others and the environment and how these three dimensions are interdependent on each other.

Collaboration: In its most simple form, working together with others to realise shared and individual goals. The expression of leadership through the nurturing of creativity, knowledge sharing, care of others and personal reflection.

Challenge: Social, physical, mental, intellectual, spiritual and emotional. Challenge is many different things to many different people. At the heart of challenge is the willingness of the individual/group to embrace the opportunity that the challenge represents and continue to strive towards their individual/shared goals (Yarra College Documentation, 2012).

Group Leaders and Teaching Staff

Each group had one leader, plus another adult as a school representative. The school representatives were made up of teaching staff, other qualified outdoor education instructors or 'old boys' who previously attended the school. Each adventure activity also had an additional specialist staff member that would join the group during activity sessions. This group of staff were specifically qualified in the activity specialisation area.

As an integral part of the 'City to Summit' curriculum and program design, the group leader was responsible for delivering different aspects of the curriculum, including the importance of school culture, values and content specifically related to the program objectives. It is the role of the group leader to facilitate the sequentially challenging experiences in consultation with the school representative and their individual groups.

The outdoor education company's staff are responsible for running the program effectively and making sure all adventure activities and safety elements remain within the company's risk management policies and procedures. The group leaders also facilitate daily feedback, reflection, discussion and debriefing sessions, which focus on encouraging healthy group dynamics and awareness of self, others and the natural environment.

It is the role of the school representatives to provide pastoral care and supervision. As all school rules apply on camp, they also provide behaviour management and discipline in line with the school's expectations. These staff

members often have a background and contextual knowledge of students which can greatly assist with group and individual learning throughout the program.

Program Outline

'City to Summit' is guided by experiential learning processes which was facilitated by the group leader from an external outdoor education provider. The program design of 'City to Summit' was delivered in three phases. In this thesis, this will be known as:

- Phase 1) Frontloading Phase: Pre-activity outdoor education
- Phase 2) Immersion Phase: The outdoor education program
- Phase 3) Integration Phase: Post-activity outdoor education

Phase 1: Frontloading phase.

The day before City to Summit's Immersion Phase, the boys' participated in a pre-trip training day (Day 0) which was held at the school to frontload the boys with important trip information before departure. Day 0 was facilitated by a senior leading teacher, who focused on delivering leadership training, trip briefings, goal setting, teamwork and initiative activities in an effort to set the scene for 'City to Summit'.

Phase 2: Immersion phase.

The Immersion Phase started on day one and saw the boys leave on buses from the school gates before arriving at Mount Beauty to prepare for their journey ahead. Groups started by hiking from Windy Corner at Falls Creek until they reached the banks of the Mitta Mitta River (hiking example provided in Figure

3.3). The next leg of the program involved whitewater rafting down the Mitta Mitta River from Jokers Flat to Taylors Crossing where they start their mountain biking leg. After the mountain biking section, the boys embarked on a 24-hour solo experience. Their last stretch of the program consisted of hiking their way to Mt Kosciusko to complete their journey (see Appendix M for the detailed 17 group program outline).

Figure 3.3. The journey begins: Group 9, Day 1 hiking leg.

Around the halfway mark of 'City to Summit', all participants engaged in a 24 hour solo experience, where they slept overnight in a wilderness setting away from any other participants or group leaders. By this stage of the program, participants were expected to be able to set up their own shelter, organise food and reflect on their experiences so far. The opportunity also required the boys to manage themselves and make their own decisions for a 24 hour period without the assistance from others. Participants are thoroughly briefed on the safety and

protocol of the solo activity and are placed in a specific location that is known to group leaders. The group leaders and the school representatives are located in a safe area where participants can return to in case of an emergency. Day 21 was the last day of the journey section and required travelling back to school on a bus from Mt Kosciusko.

Phase 3: Integration phase.

Day 22 comprised of a debriefing day back at the school which was aimed at summarising program outcomes, linking the boys' experience back to the goals they had set on day zero and help them to integrate learnings from the program into their school lives (see Appendix M for the Program Schedule and Outline).

Ethical Issues and Considerations

This research project was classified as high risk as it involved human participants who were minors in a school setting. It gained Human Research Ethics Approval (Approval Code HREC 12/141/HRETH 12/198) (see Appendix A) from the Arts, Education and Human Development Human Research Ethics Committee (AEHD HREC) of Victoria University. The researcher had meetings with the Principals and relevant teaching staff from both Yarra College and Beachside College to discuss and explain the nature of the research before gaining verbal and written consent (see Appendix B for the invitation letter to the program group Principal and Appendix C for the invitation letter to the control group Principal).

Parents and students from Yarra College were informed about the research and the potential risks involved during a parent information night held at the school three months prior to 'City to Summit'. This was accompanied by the school's camp documentation along with the written information and consent forms outlining the research (see Appendix H for the information letter and Appendix J & K for the consent forms provided to the program groups' parents and participants). Parents and students from Beachside College received detailed written information and consent forms which outlined this research and any potential risks (see Appendix I for the information letter and Appendix L for the consent forms provided to the parents and participants of the control group).

It was made clear that participation in the research was voluntary for all parties involved. Given the participants' age bracket (14 -17 years) and their ability to make decisions, consent forms were received from both participants and parents/guardians who agreed to take part in the study (Fontana & Frey, 2003; Punch, 1994). Confidentiality and privacy implications were explained to the participants in the consent forms and verbally during interviews. It was made clear that the data collected and presented would not be associated with the participants' names and would remain confidential. All boys who participated in the semi-structured interviews were given pseudonyms to ensure confidentiality (Fontana & Frey, 2003; Punch, 1994).

Following approval from the school, parents, and participants, Phase I questionnaires were administered to the program group on the pre-trip planning and packing day of the program (see Appendix D for the information letter and

Appendix F for the consent form provided to Yarra College and see Appendix E for information letter and Appendix G for consent form provided to Beachside College). Participants and staff in Group 9 that were involved in Phase II gave permission for photos collected during the program to be used and printed throughout this thesis (see Appendix V).

To ensure the participants' voluntary participation, the researcher was onsite at the school's during all data collection phases to answer any questions and reiterate that participants could withdraw from the study at any time, without feeling any type of obligation. Before each data collection phase, participants were reminded of the confidentiality and privacy implications (written and verbal) and were asked to respond to questions honestly.

During Phase III, further explanation was given about the research and how the data would be collected and used. All information provided to participants was in plain language statements. It was made clear to the participants that no personal names would be used and all recordings and responses would be kept confidential. Participants understood that counselling services at Yarra College or via Victoria University were available to them if they did experience any form of anxiety or alternative emotional responses as a result of answering the questions.

Data Collection Process

The data collection process is described in three phases which identify the data collection methods, procedures and analysis. The first phase involves the collection of survey data from both sample groups. The second phase includes the

collection of researcher observations during ‘City to Summit’, and the final phase is the implementation of the small group interviews with the program group only. In order to respond to the research questions of this study, each phase in the research process was used to inform subsequent phases. The research timeline is presented in Table 3.4, and *Figure 3.2* presents the research process flow chart. A conceptual overview of the research process is outlined below:

Phase I: Survey Data

Pre- and post-survey data from both groups are included in this phase.

Phase II: Program Observation Data

The researcher acted as an adult support staff for one of the 17 activity groups. She recorded observations of daily activities and events occurring during Group 9’s experience of ‘City to Summit’. Group 9 consisted of 13 boys, one group leader, activity support staff and the researcher.

Phase III: Interview Data

Small group, semi-structured interview sets are recorded upon the completion of the outdoor education program with eighteen boys. The first set of interviews is followed up with a second set of interviews six months post-program.

Table 3.4

Data collection timeline with descriptions of each phase

Research Process Phases	Action	Phase Description
Planning & research	Ongoing literature search and review	• Used to inform the instruments used in Phase I. • Guided practice for recording observation diary's in Phase II. • Guided the development of the semi-structured interviews guides in Phase III.
Planning & research	Survey instruments chosen	• Guided practice for recording observation diary's in Phase II. • Guided the development of semi-structured interviews in Phase III.
Phase I	Pre-survey data	• Program group data was collected at school on 21 & 22 September 2012 during Day 0, the training day before the program group started participation in 'City to Summit'. • Control group pre-survey data was collected on 11 October 2012. • The first set of data collected in Phase I was used as the baseline scores for a comparative data set to see if resilience and coping scores changed over time and after the program group's participation in 'City to Summit'.
Phase II	Observation data	• Group observations and notes were recorded from 27 October to 18 November 2012 by the researcher while participating in the 21-day 'City to Summit' program as an Assistant Group Leader with Activity Group 9. • Guided the development of semi-structured interviews in Phase III. • Used to compare findings and relationships in qualitative data.
Phase I	Post-survey data	• Throughout November 2012 the program group completed post-survey's immediately after completion of 'City to Summit', during the debrief day at school. • On the 20 November 2012, the control group completed the post-survey data at school which was within a similar timeframe as the program group data collection. • Data used as a comparison to the first data set to find examine if levels of resilience and coping had changed over time and between groups after the program groups participation in 'City to Summit'. • Findings were used to inform the interview guides. • Quantitative data used to compare the findings of qualitative data sets.

Table 3.4 (continued)

Phase III	First set of interview data	□ From 20 to 28 November 2012, four separate small group interviews were conducted with eighteen students from the program group after participation in 'City to Summit'. □ The four small group interviews ranged in size from three to five participants in each interview group. □ The eighteen participants consisted of boys from seven different activity groups. □ Used to inform the second semi-structured interviews. □ Used to compare findings and relationships to find out what types of resilience attributes and coping skills the boys applied during the 'City to Summit' program, what were the most challenging experiences and how they responded to them, and to see if their self-reported levels of resilience and coping had changed.
Data Analysis		□ Pre- and post-survey data was compared and analysed. □ The observation data in Phase II and the first set of interview data in Phase III was compared and analysed. □ Results from the data analysis was used to inform the second semi-structured interview guide in Phase III.
Phase III	Second set of Interview data	□ From 27 to 30 May 2012, four separate small group interviews were conducted with the same eighteen students from the program group six months after participation in 'City to Summit'. □ Interview data was used as a comparison to the first set of interview data. □ Used to compare themes, findings and relationships to examine if; o The resilience attributes and coping skills that were used were context-specific to the setting in which they were developed; o These skills transferred into the lives of the young people back at school; and o Participants were able to draw upon these resilience and coping attributes when confronted with adversity in the context of their school lives.
Data Analysis	Quantitative and qualitative data analysis	□ Results from pre- and post-survey data from Phase I was reported and compared with the findings from qualitative data sets in Phase II and Phase III. □ Discussion of relationships, themes and findings are reported in Chapter 6.

Note. Table sequence is in order of data collection dates. See Appendix P: Data Collection Phases and Interview Schedule

Phase I: Survey Data Collection and Procedures

This section describes the quantitative research methods, the selection process for the survey instruments and the attributes the instruments measure. This is followed by a description of the procedures for pre- and post-administration of the instruments, data collection, data analysis and reliability analysis.

Instruments.

In order to measure changes in resilience and coping attributes after participation in an extended journey style outdoor education program, the Resilience Scale (Wagnild & Young, 1993) (see Appendix N) and the Brief COPE scale (Carver, 1997) (see Appendix O) were administered to participants in the program group pre- and post-participation in the outdoor education program. It is also important to note that the Resilience Scale and Brief COPE were combined into one questionnaire and completed by participants at the same time, at both pre- and post-collection of survey data. To evaluate the effect of the program, the control group also completed two sets of questionnaires within a similar time frame as the program group.

The Resilience Scale.

Resilience was measured using the validated Resilience Scale (Wagnild, 2009; Wagnild & Young, 1993). The Resilience Scale has been identified as an effective tool to measure resilience in many populations worldwide (Ahern, 2006; Hunter & Chandler, 1999; Leppert, Gunzelmann, Schumacher, Strauss, &

Brähler, 2005; Wagnild, 2009) and has previously been used effectively in outdoor education settings with young people (Neill & Dias, 2001; Skehill, 2001) (Cronbach's alpha = 0.72; Hunter & Chandler, 1999).

The Resilience Scale measures five core components of resilience: having a purposeful life, perseverance, equanimity, self-reliance and existential aloneness (Wagnild, 2009, 2010; Wagnild & Young, 1993). This scale has been shown to have strong reliability and validity (Wagnild, 2009; Wagnild & Young, 1993; Windle, Bennett, & Noyes, 2011) with original internal consistency reported as high (Cronbach's alpha > 0.8; Wagnild & Young, 1993). A review of the Resilience Scale was conducted by Wagnild (2009) and analysed 12 studies which used the Resilience Scale from 1993 to 2007. Internal consistency reliability of the Resilience Scale was regularly high in 11 of 12 reviewed studies (Cronbach's alpha coefficient ranged from .85 to .94; Wagnild, 2009). The 12 studies analysed in the review of the Resilience Scale provided clear evidence of instrument validity and construct validity (Wagnild, 2009).

The 25 items reflecting the five elements of resilience in the scale are positively worded, and responses are presented on a Likert scale ranging from 1 (agree) to 7 (disagree) (Wagnild, 2009; Wagnild & Young, 1993).

The five interrelated psychological attributes that encompass the multifaceted construct of resilience measured by the Resilience Scale are:

1. **Purposeful Life:** Having an understanding of one's purpose in life. This involves understanding one's life goals and how these can be achieved in challenging times and adverse conditions. For example,

being able to identify personal life goals such as achieving high results on an exam or winning a football grand final, and then actively working towards achieving these goals (Wagnild, 2009, 2010; Wagnild & Young, 1993).

2. **Perseverance:** Having the determination to persist in an activity or goal pursuit despite adversities or disappointment. Perseverance allows someone to continue to be involved in a situation through self-discipline and determination, despite being discouraged by a difficult situation. For example, a student may demonstrate perseverance if they revise and study for upcoming examinations despite receiving poor results in previous tests (Wagnild, 2009, 2010; Wagnild & Young, 1993).
3. **Self-reliance:** Refers to understanding your personal capabilities and limitations yet maintaining an inherently positive self-belief. This may be demonstrated by a student who cooks a meal for themselves for the first time on an outdoor education program (Wagnild, 2009, 2010; Wagnild & Young, 1993).
4. **Equanimity:** Having an optimistic outlook, which brings balance and harmony to one's life. Equanimity is having a balanced perspective by being able to moderate extreme responses to difficult situations. For example, being able to view the situation from a positive perspective even if a mistake has been made or one has experienced a bad day (Wagnild, 2009, 2010; Wagnild & Young, 1993).

5. **Existential Aloneness:** Otherwise known as coming home to yourself. This is related to knowing one's self and being "comfortable in your own skin" (Wagnild, 2010). Even though experiences may be shared with others, some experiences in life must be faced alone. Understanding that it is the individual who makes their choices and life decisions. An example of this is being able to feel comfortable on a solo section of an outdoor education program or feeling content being alone without feeling the need to have other people around to make decisions for you (Wagnild, 2009, 2010; Wagnild & Young, 1993).

The Brief COPE.

The Brief COPE scale was implemented in this study to measure the construct of coping, as it has been used successfully in previous research with adolescents in an outdoor education context (Ewert & Yoshino, 2008) (see Appendix O for the Brief COPE). The scale has demonstrated both reliability and validity. Carver (1997) conducted a reliability analysis to evaluate the internal structure of the Brief COPE. The internal consistency alphas ranged from .52 to .90, however the Acceptance, Denial and Venting scales had alpha values lower than .60 (Carver, 1997). These statistics are deemed by researchers as acceptable internal reliabilities (Yusoff, Low, & Yip, 2010), as .50 is an accepted minimal value for internal reliability (Nunnaly, 1978). Carver (1997) also conducted an exploratory factor analysis (EFA) to ensure validity of the internal structure of the Brief COPE. The EFA produced nine factors of which eight factors were greater than 1.0 and accounted for 72.4% of the variance.

Participants were asked to respond to a coping statement based on a four-point scale, with answers ranging from one: ‘I don’t do this at all’ to four: ‘I do this a lot’. Five represented ‘I prefer not to answer’ (see Appendix O). Questions were neither positively nor negatively worded. The scale measured 28 items with 14 subscales of different coping skills (summarised in Table 3.5). These 14 different subscales measured a variety of both emotion-focused and problem-focused coping skills, which also measured various responses in relation to known effective and ineffective coping methods (Carver, 1997). Caver (2007) explicitly points out that each subscale should be looked at separately as he has not labelled the subscales as either adaptive or maladaptive (Carver, 2007). This supports the research by Lazarus and Folkman (1984) who suggest that coping responses should not be labelled as inherently good or bad, but rather should be viewed as emotion-focused or problem-focused coping skills. Henceforth, this research will treat coping skills within each factor as emotion-focused and problem-focused skills, rather than labelling them as maladaptive or adaptive coping skills (summarised in Table 3.5).

Table 3.5

Emotion-focused and problem-focused examples of coping within the 14 subscales of the Brief COPE

Emotion-focused coping dimensions		
Item	Description	Example
Self-distraction, items 1 and 19	Keeping yourself busy to take mind off the issue.	Watching TV.
Active Coping, items 2 and 7	Taking action to help yourself.	Gratitude writing or journaling.
Denial, items 3 and 8	Suppressing negative thoughts or emotions.	Pretend the problem doesn't exist.
Substance Use, items 4 and 11	Using substances to cope.	Drinking alcohol or using drugs.
Behavioural Disengagement, items 6 and 16	Another form of distraction or active avoidance	Arriving late to class or intentionally not paying attention.
Venting, items 9 and 21	Emotional disclosure. A two-way process: the person venting and the person hearing the vent.	Expressing strong emotions to a friend.
Humour, items 18 and 28	Can suppress negative thoughts and emotions through distractions. Can relive tension and anxiety.	Making a joke out of a difficult situation. Laughing in the face of adversity.
Religion, items 22 and 27	Fining strength from personal belief systems.	Praying for guidance and strength.
Self-blame, items 13 and 26	Cognitive reappraisal of self	Feelings and excessive thoughts of real or perceived failure.

Table 3.5 (continued)

Problem-focused coping dimensions		
Item	Description	Example
Use of Emotional Support, items 5 and 15	Gaining emotional assistance externally to cope.	Seeking support from a counsellor.
Use of Instrumental Support, items 10 and 23	Tangible help that others provide.	Seeking support from friends and family to drive you to school.
Positive Reframing, items 12 and 17	Problem-solving with positive thoughts.	Use of positive affirmations and visualisations.
Planning, items 14 and 25	Problem-solving or time management.	Planning you day or week in your diary.
Acceptance, items 20 and 24	Awareness and acknowledgment of circumstances.	Staying optimistic regardless of current hardship.

Survey Data Collection and Procedure

Consent to participate in the research was obtained from both the participants themselves and their parent or primary caregiver. The questionnaire administered included both the Resilience Scale and the Brief COPE Scale and was completed online by participants using Qualtrics online survey software. During the pre-trip preparation day (Day 0), students from the program group (N = 200) completed the questionnaire before the program commenced at their school in private computer booths. This dataset is referred to as Time 1 (T1). The same students repeated the questionnaires at school, in the same computer booths after completion of the program during the post-trip debrief on day 22. This dataset is referred to as Time 2 (T2). See Appendix P for detailed information of data collection phases and the interview schedule.

Participants from the control group completed the same questionnaire at school at both T1 and T2 within a similar three-week timeframe. The questionnaires at T1 and T2 were matched to individual students through a birthday code to maintain the privacy of all students.

Survey Data Analysis

As a comparison group, this study utilised data from a control group that was not exposed to any sort of outdoor education programs during their Year 10 studies. The two data sets (pre- and post-) from the control group were used as comparative data sets against the two data sets (pre- and post-) from the program group. Having the control group of students provided an opportunity to compare

the data sets in order to identify if the control groups results remained the same with no intervention and to see if the program group showed any changes in resilience attributes and coping skills after participation in 'City to Summit'. The pre-survey results provided a baseline data set to see if both groups showed similar results before participation in 'City to Summit'. The second set of data allowed the researcher to identify if participation in 'City to Summit' affected levels of resilience and coping attributes compared to the control group who did not participate in any outdoor education programs within the same timeframe.

Questionnaire data was analysed to provide both descriptive and inferential statistics. The survey data collected from the Resilience Scale and the Brief COPE Scale were analysed and statistically described using the computer-based SPSS version 22. ANOVA was used to evaluate the influence of outdoor education program on the five resilience attributes and the 14 coping subscale scores over time and within groups (pre- and post-).

The primary goal of the data analysis was to compare the group's results and determine if either group had developed resilience and coping skills over time. Based on results from previous research (e.g., Ewert & Yoshino, 2011; Gillespie & Allen-Craig, 2009; Neill & Dias, 2001) and because of the exposure to risk, challenges and new supportive environments, which require the application of resilience and coping skills, the researcher predicted that the outdoor education program would be more beneficial in helping students to develop resilience and coping skills compared to other experiences in their daily school lives.

Statistical analyses involved the following procedures:

1. Factor structure was evaluated using Exploratory Factor Analysis.
2. The internal consistency of the test was assessed by calculating the Cronbach's alpha coefficient for each scale. Correlations were calculated between the Resilience Scale and the revised factor structure of the Brief COPE scale to demonstrate the relationships between the factor variables of each scale.
3. Descriptive statistics were calculated for both groups with each scale, including means, standard deviations, and skewness. Frequencies are also presented.
4. ANOVA and repeated measures t-tests were used to compare means between groups at both time points and within groups over time. Significance was assumed at $p < .05$.

Exploratory Factor Analysis Procedure

Consistent with previous studies, a procedure of factor structure refinement of the Brief COPE was adopted (Carver, 1997; Ewert & Yoshino, 2008; Hastings et al., 2005; Kimemia, Asner-Self, & Daire, 2011) due to the 14 subscales not being previously determined as either problem-focused or emotion-focused skills (Carver, 1997; Ewert & Yoshino, 2008).

This research uses an Exploratory Factor Analysis (EFA) to determine a revised factor structure, with an aim to refine complex patterns by exploring the relationships of variables and factors in the Brief COPE (Ferguson & Cox, 1993). The researcher analysed the participant data to examine the factor structure of the

self-report measures using the principal axis factoring extraction with oblique rotation (direct oblimin) (Child, 2006). Principal axis factoring extraction was utilised as it acknowledges communality estimates and includes an error term within its model, consequently, avoiding the assumption within principal components analysis that the variables will correlate perfectly (Ferguson & Cox, 1993; Gorsuch, 1997).

Oblique rotation was selected instead of orthogonal rotation due to the increased possibility of a correlation between the factors being explored in the Brief COPE scale. The EFA used mathematical procedures for the interpretation of interrelated measures to discover patterns in the set of coping dimensions (Gorsuch, 1997; Yong & Pearce, 2013). Following consideration of the statistical results, factor patterns will also be assessed and considered in relation to logical analysis (Boros et al., 2000).

Reliability Analysis

Internal consistencies for the measures were calculated for both scales using Cronbach's alpha (α). The original values published in the Resilience Scale's Manual (Wagnild & Guinn, 2011), were consistent with the reliability values in this research. For different types of research, such as group research purposes, the typical expected minimum reliability is .70 (Cortina, 1993; Gliem & Gliem, 2003; Nunnaly, 1978), however, other authors (Salvia, Ysseldyke, & Bolt, 2007; Santos, 1999) have indicated, .60 is also considered to be a lower limit of acceptability for the reliability coefficient.

Phase II: Program Observation Data

The researcher attended the outdoor education program as an assistant guide to observe one group's experience. The researcher's participation in the program provided an insight into the goals and activities of 'City to Summit', which helped to inform the design of the semi-structured interview guides in Phase III.

During Phase II, the researcher observed the activities during 'City to Summit' and the students' responses to these experiences. Recordings of the researcher observations were kept in 3 parts:

1. **Descriptive Diary:** Recording of the facts about daily activities of the group and their reactions. This was a clinical account of the program.
2. **Observation Diary:** Detailing observations about the group, individual's personal development and the participant's emotional responses.
3. **Personal Diary:** Reflections presenting a personal account of the researcher's feelings, thoughts, emotions and experiences.

Findings from the diaries, including participants' comments and specific examples are presented in Chapter 5.

Descriptive Diary

The descriptive diary was used to record specific facts and did not analyse or portray any preconceived ideas or notions about the observations. The descriptions provide accounts, clear explanations and examples of what occurred

during the program. It also provides actual quotes provided by the participants. The descriptive diary followed the following format:

- Day, date, time.
- Weather.
- Description of the day (e.g., activities, locations, landmarks, challenges etc.).
- Student responses to the activities and program challenges.

Observation Diary

The information recorded in the observation diary was guided by the literature and survey instruments used in Phase I. The observation diary took the form of a narrative, as the researcher was looking for specific themes and examples of participants' experiences and responses observed during 'City to Summit'. The information recorded included identification of the participants displaying examples of:

- Resilience attributes (purposeful life, equanimity, perseverance, self-reliance, existential aloneness).
- Coping skills (problem-focused or emotion-focused).
- Application of other possible constructs of resilience (e.g., self-efficacy, grit, hardiness, mental-toughness, self-concept, internal locus of control, restored functioning, self-actualisation, adaption etc.).
- Other potential contributing factors (e.g., challenge level, supportive environment, social needs, social support, well-being, psychological state etc.).

Personal Diary

Prior to the research taking place, the researcher had been a professional outdoor educator for over a decade with an extensive understanding of skills and knowledge in the field of outdoor education. This allowed her to step back from the group dynamics and consider the interaction of participants during the program. A personal diary of the researcher's conceptual thoughts, emotions and experiences were kept separately from the other two diaries. This diary outlined the researcher's personal feelings, emotions and interactions with the group. These accounts allowed for the ability to monitor any biases the researcher may have had.

Program Observation Analysis

The researcher's observational diaries recorded during 'City to Summit' were analysed for emerging themes and then compared with the relevant literature and survey instruments used, which helped to inform the coding processes used in Phase III. To maintain confidentiality, all observations and participant comments presented in this research include pseudonyms. Recorded themes of observational data were categorised and used to inform the questions for the first semi-structured interview guide (see Appendix Q). The emergent themes from the diaries were analysed and refined four times to help guide and inform the interview questions used in Phase III. The findings from these observations may help to give further meaning to participants' comments, personal understandings, behaviour and perceptions during the interviews. Phase II data was compared with

findings from both the survey data and interview data, and the relationships are discussed in Chapter 6.

Trustworthiness of Phase II Data

Due to the nature of collecting Phase II data through personal observations and interactions, the trustworthiness of the data has the potential to be undermined by personal bias, misinterpretation or misrepresentation by the researcher (Shenton, 2004). To overcome this, the trustworthiness of the observation data is supported in several ways by the researcher:

- Recording the personal diary which outlines the researcher's own emotions and involvement with the group. This allowed for assessment of potential researcher influences and bias, including the possible effect on the participants' experiences, responses and behaviours during 'City to Summit' (Brymer, 2002).
- Taking the methodological stance of being a peripheral member of the group as much as possible. The researcher was involved enough with the group to establish an insider's identity without having an overbearing input or effect on group decision making (Fontana & Frey, 1994).
- Recording the context of the research environment in the descriptive diary. It was important that the person collecting the data kept the observations in the context of the research environment that was being observed, ensuring reliability and validity of the data in the context of observations in natural environments (S. J. Taylor & Bodgan, 1984).

- Having transparent diaries that were cross-reviewed and validated by two separate researchers (Shenton, 2004).

Phase III: Interview Data Collection and Procedures

The previous section summarised the methods and procedures of survey data collection from Phase I and outlined the researcher's program observations from Phase II. This next section describes the methods for data collection processes and procedures for the small group semi-structured interviews in Phase III.

Semi-Structured Interviews

Interviews are an effective data collection method that can be used within a naturalistic inquiry approach for investigating phenomena because participants articulate the experience from their own perspective (Denzin & Lincoln, 1994, 2011, 2003; Fontana & Frey, 2003; Guba & Lincoln, 1988a). Interviews generate rich descriptions to explore the context and experiences of the participants in relation to their resilience and coping strategies (Denzin & Lincoln, 1994; Fontana & Frey, 2003; Herrman et al., 2011; Sofaer, 1999) which would not be possible without face-to-face verbal interaction (Fontana & Frey, 2003; Guba & Lincoln, 1988b). Interviews were conducted with eighteen participants immediately after 'City to Summit' and then again six months post-program.

The aim of conducting semi-structured interviews immediately after 'City to Summit' was to explore the students' initial responses to spending 21 days travelling as a small self-contained group through semi-wilderness areas, as well as understanding how these experiences may have influenced their development

of resilience attributes and coping skills. Conducting a second set of interviews six months post-program, provided the opportunity to investigate any changes that had occurred during that period and to investigate whether the participants had applied any identified change in resilience or coping skills beyond the scope of the outdoor education program.

Semi-structured interview guide 1.

The first interview guide was informed by the literature review, survey instruments and the researcher's observations during the outdoor education program. Themes of perseverance, self-reliance, existential aloneness, equanimity and meaningfulness (purposeful life) as outlined in the Resilience Scale were explored. The problem-focused and emotion-focused subscales as categorised in the Brief COPE were also investigated. The examination of themes commenced with general comments about the boy's experiences and transitioned to focussing on specific examples of their actions, behaviours and emotional responses.

The first set of four small group interviews were conducted straight after the experience. The initial interviews focused on the participants' personal experiences during the outdoor education program. The focus of these interviews was to investigate how the participants responded to program challenges and to see if they were able to identify their use of, or change in, resilience attributes and coping skills.

To allow for the natural flow of conversation, questions were open-ended and not specifically set in order. Participants were asked to conceptualise their understating of resilience in their own words and were questioned about any

changes they noticed within themselves, their behaviours or relationships with others during or immediately after ‘City to Summit’. If the boys started talking about a topic, the researcher was able to facilitate the flow, then bring the awareness back to the interview guide. In addition, the researcher’s observations from the outdoor education program guided the discussion examining the role of supportive environments, staff impacts, group dynamics, leadership, personal learnings, self-concept and self-control (see Appendix Q for Interview Guide 1). Responses then informed the process and questions for exploring how resilience and coping skills are potentially transferred across settings in the second set of interviews.

Semi-structured interview guide 2.

The focus of the second interview was to explore any changes in resilience attributes and coping skills that participants identified in their first interview. These interviews were intended to answer research questions two, three and four:

Research Question 2

If attributes were enhanced, what supported and fostered the development of these resilience attributes and coping skills?

Research Question 3

If attributes were enhanced, what attributes of resilience and coping were transferred and applied in contexts other than an outdoor education setting?

Research Question 4

How can resilience and coping skills be best developed and transferred into other contexts of learning?

The second interview guide was comprised of two parts. The first part investigated if the boys recognised or recalled their personal learnings outlined in the first set of interviews. Specifically, the questions were related the changes they identified, their emotional responses and personal perceptions on the way they dealt with program challenges. The second part was intended to clarify if they had applied the identified changes or key personal learnings into other contexts of their lives.

As the groups included the same participants from the initial interview, this guide was structured based on the participants' previous comments about 'City to Summit'. Participants were asked whether they could recall their responses to personal learnings or memories they discussed in the first interview. If they were unable to recall their responses, the researcher reminded them of their initial response and investigated whether they still felt the same way. For example, one of the themes that emerged in the first set of interviews was appreciation, which helped to inform specific questions such as:

Researcher: Now that you guys are back to 'reality' as you called it, how have you gone at remembering the things you appreciated most?

Why do you think that is?

From the initial interview, do you remember anything you learnt that you said you will take from the trip and utilise it back to your school life? Do you think you have done that? Can you give me any examples?

Responses were then followed by an inquiry into the participant's experience of transferring their learning into other contexts as well as an enquiry as to why this may or may not have occurred (see Appendix R for Interview Guide 2).

Interview Data Collection and Procedure

The first set of small group interviews were conducted the day after completion of their 'City to Summit' experience. Initially, the 20 consenting participants were divided into four groups of five boys. Two students did not attend; therefore, the total number of participants was eighteen. The final small groups ranged in size from 3-5 participants in each group. The eighteen participants were sourced from seven different activity groups from within the program group, with some participants experiencing 'City to Summit' together (see Table 3.4). The second set of small group interviews was conducted six months after the conclusion of the program with the same eighteen boys in the same four groups. All pre- and post-interviews typically took an hour and were conducted in a private room at the school to insure confidentiality (see Appendix P for the detailed Interview Schedule).

Interview Data Analysis

Interviews were conducted by the researcher and were digitally audio-recorded and transcribed by the researcher and another professional transcriber. All boys who participated in the small group interviews were given pseudonyms to protect their identity and keep their responses confidential. The researcher analysed the interview data in three stages:

Stage 1: The first set of interviews were transcribed and analysed for emerging themes using Nvivo qualitative data analysis software (Creswell et al., 2003). The emerging themes were compared with the themes from the observational data in Phase II, along with relevant literature, which then informed the development of second semi-structured interview guide. This comparison process allowed the researcher to cross-check whether the themes found in observational data were similar to findings in other studies as well as findings from the interview data, giving further credibility to the findings. Recurrent themes for each participant were also coded (Fossey, Harvey, McDermott, & Davidson, 2002). After the first set of interview data was collected and coded, common themes from the observational dairies were compared with the first set of interview data, which helped to inform the second semi-structured interview guide (see Appendix R).

Stage 2: The second set of interviews were transcribed and analysed for emerging themes using Nvivo qualitative data analysis software. As the analysis progressed, theories emerged which provided an understanding of the influences of the outdoor education program on the development of resilience attributes and

coping skills, as well as the strengths and weaknesses of the program over time (Schwandt, 2007). Themes were analysed and coded based on the literature, survey data, observation data and the first set of interview data.

Stage 3: The final stage of the qualitative data analysis compared the findings from Stage 1 with the findings from Stage 2. The researcher's coding analysis was independently validated by two separate researchers. Identified themes were then brought together into meaningful relation with each other, and a structural synthesis of the core elements of participants' experiences described in the interviews was formed. From the initial large set of codes identified, a reduction stage included three separate cycles of analysis (Fossey et al., 2002).

1. Cycle 1: The first cycle of qualitative data analysis involved the identification of all higher order parent themes and child themes within Phase II and Phase III.
2. Cycle 2: Key relationships were analysed, and themes are combined. Structural synthesis of the core elements in both Phase II and Phase III are compared and analysed.
3. Cycle 3: Final higher order themes were identified.

The findings of qualitative data sets were used to address the aims and answer the research questions of this study. This provided the platform for the researcher to understand the relationships between the changes in participants levels of resilience and coping attributes in the context of their outdoor education experiences. Qualitative results and analysis of Phase II and Phase III are presented in Chapter 5 (see *Figure 3.2* for the flowchart of data analysis).

Trustworthiness of Phase III Data

The terms validity, reliability and generality in qualitative research are up for debate (Onwuegbuzie & Leech, 2007). These scientific terms and concepts apply more to quantitative research (Kvale, 1995) and may be deemed as being inappropriate for qualitative research due to external manipulating factors, such as the potential for influence or error caused by the researcher (Yardley, 2008). However, other research (Brantlinger et al., 2005; Mack, Woodsong, MacQueen, Guest, & Namey, 2005) has shown the advantages of using qualitative methods, which include allowing the participants to express their views freely, allowing for topics of discussion to be explored in greater depth (Mack et al., 2005).

The semi-structured small group interviews aimed to investigate individual experiences and their responses to participation in 'City to Summit', and to provide context for the values reported in the survey data (Yardley, 2008). Whereas, the observation data collected was implemented to provide real-life descriptive accounts of observations made during the program from the researcher's point of view. The qualitative data collected during Phase II and Phase III provided rich descriptions of complex phenomena to give meaning and understanding to the multifaceted dimensions of human interaction including, biological, psychological, social and cultural influences of the participant's experiences (Fossey et al., 2002; Sofaer, 1999).

The qualitative methods for data collection and analysis used in this research aim to be considered plausible, credible, trustworthy, and therefore defensible (J. R. Burke, 1997). Prior to the collection of qualitative data, the

following four elements were taken into consideration to determine the validity, reliability and trustworthiness of data: Sensitivity to context; commitment and rigour; coherence and transparency; and impact and importance (Yardley, 2008).

Sensitivity to context was demonstrated in a number of ways. Firstly, the participants were made aware that the researcher was an outdoor education teacher who had also completed 'City to Summit' with another group. This allowed the participants and researcher to easily relate to program experiences, whilst also allowing the researcher to be sensitive towards their comments and feelings.

Secondly, the researcher was acutely aware of the sensitivity to various contexts, and therefore accordingly facilitated the flow of communication during interviews. This facilitation style set a relaxed environment for the participants to respond to questions. Having participants feel as though they are being listened to may contribute to a therapeutic effect during interviews (Poggenpoel & Myburgh, 2003).

Lastly, the researcher ensured all participants understood the risks involved in the research and that they had the ability to leave the interviews at any stage without question. Participants understood that their personal interview responses would only be shared with the researchers and that their privacy would be protected by allocating pseudonyms and following confidentiality procedures. Counselling services were also offered to support participants if they deemed it necessary.

Commitment and rigour was determined through a number of ways. Initially, the researcher completed the 21 day 'City to Summit' program herself so

that she could have a first-hand experience of what the participants experienced throughout the entire program, how they felt, what the environment was like and to experience the same challenges the students experienced from start to finish. She then kept a series of three observational diaries to correlate and cross-check if any themes arose. The descriptive diary recorded factual accounts of daily activities and the student's responses to the challenges and experiences, the observational diary demonstrated participants emotional responses, and the personal diary was used to monitor the researcher's personal responses to the data collection. Upon completion of the program, the three observational diaries were cross-checked in a cyclic analysis of the data to identify themes in Phase II and Phase III.

The researcher also showed commitment and rigour through conducting and rehearsing interviewing techniques before starting Phase III. Interview formats allowed for an authentic two-way communication, which then permitted in-depth descriptions and discussions within the small groups. In an effort to minimise influences on participants' comments during the interviews, the researcher remained neutral and tried not offer any personal opinions. The researcher demonstrated commitment and rigour by attending all interviews on time and allowing time for questions before and after the recordings.

Coherence and transparency were established by conducting interviews that were all digitally recorded and transcribed verbatim. The same semi-structured interview guides were followed, with the same groups of participants during both interview sets. This ensured that the group was comfortable and allowed the researcher to build on questions and answers from the previous

interviews. Transparency was demonstrated clearly as interview data was cross-validated by another two researchers and all results were made available for participants to access.

Impact and importance were demonstrated by comparing findings from interview data sets with both Phase I and Phase II. The survey data results were able to be put into context, further explained and understood through the individual responses recorded during the interviews. This provided further insights into the effects and impacts of participation in 'City to Summit' (Denzin & Lincoln, 1994, 2008, 2003; Fontana & Frey, 2003). In addition, collecting two sets of qualitative data not only demonstrated the impact and importance of Phase III but was also imperative to answering the research questions as it enabled a comparative data set of participant responses.

Chapter Summary

This chapter outlined the pragmatist approach applied to this research. It detailed the mix of methods selected, the procedures and the data analysis used in the three data collection phases. A pragmatic approach, which included both post-positivist and constructivist paradigms, were used to guide the data collection and analysis in order to give meaning to the multidimensional and complex phenomena of an outdoor education program's effect on teenage boys' resilience and coping.

In Phase I, two groups of school students were surveyed to collect data about their self-reported levels resilience and coping attributes (N = 111). The program group (n = 69) participated in the extended journey style outdoor

education program and answered both the Resilience Scale and the Brief COPE scale questionnaires. A control group (n = 42) who did not participate in any outdoor education programs also completed the survey measures. Both groups could be compared as they had similar demographics, as far as social, cultural and school environments. Data from Phase I was statistically analysed using SPSS version 22. The results of the descriptive statistics, frequencies, ANOVA, repeated measures t-tests, internal consistencies, EFA, and correlations are presented in Chapter 4.

Qualitative Data was collected during Phase II and Phase III and only involved the program group. The researcher collected program observation data throughout Phase II. She observed students in one group participating in the outdoor education program and kept observational recordings in three parts; (1) a descriptive diary; (2) an observation diary; and (3) a personal diary.

Phase III involved collecting data from two sets of small group semi-structured interviews with a total of eighteen boys from seven different activity groups. This first set of interviews was conducted in the week post-program and followed up by a second set of interviews 6 months post-program with the same participants. Results from Phase I are presented in the next Chapter, and the results from Phase II and Phase III are presented in Chapter 5. The overall findings and the discussion of the relationships between the data and are presented in Chapter 6.

CHAPTER 4: QUANTITATIVE RESULTS- PHASE I

A mind that is stretched by a new experience can never go back to its old dimensions

–Oliver Wendell Holmes

Figure 4.1. Self-guided raft on the Mitta Mitta River.

Impact of an Outdoor Education Program on Resilience and Coping skills

The previous Chapter outlined the methodology, the premise behind this study, and presented the implementation and justification of this research using a mixed methods approach. This study used two psychometrically validated questionnaires, combined with small group interviews to assess any immediate and short-term changes in the participants' resilience and coping attributes after participation in a journey style outdoor education program. The approach provided a solid framework from which to examine the trends and themes that

emerged from the mixed data collected, enabling a richer understanding of participants' actions, behaviours and experiences.

As outlined in the methodology, the mixed methods approach enabled empirical testing in Phase I to support the qualitative data collected in Phase II and Phase III. The qualitative data provided detailed accounts from the participants to complement the findings of the quantitative data presented in this chapter (Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007). The results of Phase II and Phase III are presented in Chapter 5 and Chapter 6 provides a discussion on how the detailed annotations and theoretical underpinnings in Phase II and III support and interact with the quantitative findings from Phase I. This chapter details Phase I of the research that examines the data collected from the questionnaires and provides the results of the quantitative data sets of the research.

Aims

This research aimed to identify the particular attributes of resilience and coping which were strengthened through participation in a journey style outdoor education program. Specifically, Phase I aimed to answer the first research question:

Research Question 1

Which attributes of resilience and coping are enhanced through participation in an extended secondary school outdoor education program?

This was specifically demonstrated through the examination of pre-and post-program questionnaires of the Resilience Scale and the Brief COPE Scale.

Phase I: Quantitative Results

Statistical analyses and results from the pre- and post-program questionnaire administration are presented in the following sections: (a) Resilience Scale descriptive and inferential statistics, (b) Resilience Scale internal consistencies, (c) Brief COPE descriptive and inferential statistics, (d) Brief COPE exploratory factor analysis, (e) Brief COPE internal consistencies, and (f) correlations. The chapter concludes with a discussion of the quantitative results.

Resilience Scale Descriptive and Inferential Statistics

Descriptive statistics for each dependent variable in the Resilience Scale are presented in Table 4.1. Data pertaining to the inferential outcomes associated with t-test comparisons are also detailed in Table 4.2. Descriptive statistics for each dependent variable in the Resilience Scale are also presented graphically in Table 4.1. These results include pre-test at Time 1 (T1) and post-test at Time 2 (T2) scores for both the program group and control group (N = 111). Results from the program group (n = 69) were compared to the control group (n= 42) at Pre- (Time 1) and Post-test (Time 2), which satisfied the minimum number of participants required for a large effect.

Table 4.1

Resilience Scale means, standard deviations and t-tests

Resilience Attributes	Group	Time 1		Time 2		Repeated measures t-test
		M	*SD*	*M*	*SD*	*T(p)*
Overall Resilience	PG	136.00	16.13	140.65	13.59	-3.16 (.002*)
	CG	135. 29	16.50	134.69	16.80	0.25 (.808)
Perseverance	PG	27.97	3.75	29.06	3.48	-2.82 (.006*)
	CG	27.26	4.49	27.31	4.04	-0.07 (.942)
Self-Reliance	PG	27.86	4.03	28.33	3.45	-1.31 (.193)
	CG	26.07	3.86	26.40	4.08	-0.67 (.508)
Existential Aloneness	PG	27.90	3.32	29.12	3.11	-3.18 (.003*)
	CG	28.43	3.74	27.50	4.40	1.45 (.154)
Equanimity	PG	25.54	4.32	26.01	3.15	-1.16 (.250)
	CG	25.69	4.89	25.60	3.65	0.13 (.900)
Purposeful Life	PG	26.74	4.26	28.13	3.46	-2.73 (.008*)
	CG	27.83	4.29	27.88	3.64	-0.08 (.936)

Note. * = p < .05, PG: program group, CG: control group

All initial t-test scores reported probability values of p = >.05 in Levene's test for equality of variances and the assumption of homogeneity of variance was met. Therefore, repeated measures t-tests were performed with equal variances assumed and no significant differences at baseline. Repeated measures t-tests showed significant differences for Overall Resilience (p = .002), Perseverance (p = .006) Existential Aloneness (p = .003), and Purposeful Life (p = .008) as highlighted in Table 4.1. These follow-up t-tests also indicated that despite similar

levels of Overall Resilience at T1, the groups differed at T2 (p = .043) with the program group reporting greater resilience (M = 140.65, SD = 13.59). Existential Aloneness also had a significant interaction effect between time and group (p = .003). Differences at T2 (p = .026) were also found with the program group (M = 29.12, SD = 3.11) reporting higher Existential Aloneness than the control group (M = 27.50, SD = 4.40).

A mixed-design analysis of variance model (ANOVA) was then used to test for differences between the program group and control group, as well as to test for any differences over time. The ANOVA design consisted of a 'between subjects' (x 2 levels) and a 'within subjects' variable (x 2 levels), giving a total of 4 cells in the ANOVA design. A main effect was found for group and Self-Reliance, F (1, 109) = 7.31, p = .008. An interaction effect for both time and group was also found for Overall Resilience, F (1, 109) = 3.86, p = .043 and Existential Aloneness, F (1, 109) = 9.40, p = .003. All other ANOVA results for the Resilience Scale were non-significant (refer to Table 4.2).

Table 4.2

ANOVA results for the Resilience Scale

Attribute	Main effect 1 Time F (1, 109)	Main effect 2 Group F (1, 109)	Time x Group Interaction F (1, 109)
Overall Resilience	2.31	1.48	3.86*
Perseverance	2.55	3.36	2.14
Self-Reliance	1.80	7.31**	0.06
Existential Aloneness	0.17	0.80	9.40***
Equanimity	0.24	0.04	0.53
Purposeful Life	3.25	0.42	2.84

Note. * p < .05, ** p < .01, *** p < .005

Resilience Scale Frequencies

In all cases, the program group reported a higher percentage increase in scores for the student cohort with an increase in resilience attributes after participation in 'City to Summit' compared to the control group. The percentage of the students who had no change was calculated with a minimal change score by less than 3% in either direction. The program group (N = 69) showed 46.4% of students had an increase in Overall Resilience scores compared to the control group (N = 42) who had 33.3% of students with an increase. At T2, 40.6% of participants in the program group reported an increase in Perseverance score, while 28.6 % of the control group reported an increase in Perseverance score. Purposeful Life showed an increase with 53.6% of students from the program group reporting a positive change, compared to the control group who reported

only 33.3% of students' increasing their score. Almost half the program group (47.8%) registered an increase in their Existential Aloneness scores, whereas the control group only has 23.8% of participants with an increase. See Table 4.3 for all percentage changes in the Resilience Scale.

Table 4.3

Resilience Scale percentage scores for program and control groups

Attributes	Group	% change decrease.	% no change	% change increase
Overall Resilience	PG	17.4	36.2	46.4
	CG	35.7	31.0	33.3
Perseverance	PG	17.4	42.0	40.6
	CG	31.0	40.5	28.6
Self-Reliance	PG	26.1	36.2	37.7
	CG	21.4	57.1	21.4
Existential Aloneness	PG	24.6	27.5	47.8
	CG	40.5	37.5	23.8
Equanimity	PG	30.4	29.0	40.6
	CG	38.0	31.0	31.0
Purposeful Life	PG	23.2	23.2	53.6
	CG	28.6	38.1	33.3

Resilience Scale Internal Consistencies

The Resilience Scale Cronbach's Alpha value was $\alpha = .88$. Individual subscales scores were also calculated for the Resilience Scale which had 26 items in total. All five subscales included five items each and the 26^{th} item measured Overall Resilience. Subscales with moderate coefficients were Purposeful Life ($\alpha = .63$), Self-Reliance ($\alpha = .69$) and Equanimity ($\alpha = .61$). Perseverance ($\alpha = 0.70$) was the only subscale that indicated strong coefficients, while Existential

Aloneness **(**$\alpha = .43$) was the only subscale to measure a low to moderate coefficient between subscale items.

Brief COPE Descriptive and Inferential Statistics

The means, standard deviations and repeated measures t-test for each subscale in the Brief COPE scale are presented in Table 4.4 and report both pre- (T1) and post-test (T2) scores for each group. Participants all showed varying results for the 14 coping subscales. Participants in the program group increased their mean scores at T2 for Active Coping (*M* = 3.06; 3.20, *SD* = 0.61; 0.54) and Planning (*M* = 2.98; 3.17, *SD* = 0.71; 0.55), and the control group also increased at T2 in the same subscales; Active Coping (*M* = 2.95; 3.17, *SD* = 0.75; 0.54) and Planning (*M* = 3.01; 3.07 *SD* = 0.71; 0.65). The program group decreased their scores for Substance Use (*M* = 1.30; 1.15, *SD* = 0.74; 0.45) and Behavioural Disengagement (*M* = 1.70; 1.55, *SD* = 0.69; 0.60) at T2, whereas the control group increased their scores in Substance Use (*M* = 1.49; 1.68, *SD* = 0.96; 0.97) and Behavioural Disengagement (*M* = 2.02; 2.15, *SD* = 0.91; 0.75) within the same time frame.

Table 4.4

Brief COPE means, standard deviations and repeated measures t-tests

Attributes	Group	Pre-test		Post-test		Repeated measures t-test
		M	*SD*	*M*	*SD*	*t(p)*
Self-distraction	PG	2.80	0.63	2.89	0.57	-0.95 (.348)
	CG	3.16	0.79	3.11	0.66	0.54 (.593)
Active coping	PG	3.06	0.61	3.20	0.54	-1.85 (.068)
	CG	2.95	0.75	3.17	0.54	-1.79 (.081)
Denial	PG	1.49	0.67	1.48	0.66	0.15 (.881)
	CG	2.10	1.02	2.15	0.95	-0.43 (.673)
Substance use	PG	1.30	0.74	1.15	0.45	1.69 (.096)
	CG	1.49	0.96	1.68	0.97	-1.56 (.128)
Use of Emotional Support	PG	2.44	0.80	2.62	0.76	-1.85 (.068)
	CG	2.50	0.83	2.46	0.89	0.34 (.734)
Behavioural Disengagement	PG	1.70	0.69	1.55	0.60	1.54 (.128)
	CG	2.02	0.91	2.15	0.75	-1.17 (.251)
Venting	PG	2.37	0.79	2.33	0.65	0.46 (.649)
	CG	2.64	1.03	2.69	0.90	-0.42 (.675)
Use of Instrumental Support	PG	2.75	0.80	2.81	0.75	-0.65 (.520)
	CG	2.60	0.88	2.65	0.78	-0.40 (.692)
Positive Reframing	PG	2.82	0.71	2.90	0.65	-0.88 (.381)
	CG	3.04	0.79	3.05	0.65	-0.22 (.831)
Planning	PG	2.98	0.71	3.17	0.55	-2.07 (.042*)
	CG	3.01	0.71	3.07	0.65	-0.58 (.566)
Self-blame	PG	2.57	0.70	2.59	0.69	-0.25 (.807)
	CG	2.63	0.86	2.55	0.77	0.58 (.567)
Humour	PG	2.84	0.91	2.74	0.93	0.97 (.338)
	CG	2.75	0.91	2.89	0.92	-1.11 (.274)
Religion	PG	1.70	0.93	1.69	0.89	0.15 (.879)
	CG	1.88	0.88	1.86	0.85	0.8 (.940)
Acceptance	PG	3.24	0.62	3.26	0.56	-0.73 (.728)
	CG	3.07	0.65	3.27	0.61	-2.26 (.030*)

Note. * = p < .05, PG: program group, CG: control group

Follow-up t-tests results (see Table 4.4) indicated that despite no significant differences between groups at T1, at T2 the program group reported coping less (p = .001) through Substance Use (M = 1.30; 1.15, SD = 0.74; 0.45) compared to the control group which increased their scores at T2 (M = 1.49; 1.68, SD = 0.96; 0.97). This trend was repeated for Behavioural Disengagement where a near significant interaction effect (p = .060) was caused by a decrease in Behavioural Disengagement at T2 for the program group (M = 1.70; 1.55, SD = 0.69; 0.60) compared to the control group which increased at T2 (M = 2.02; 2.15; SD = 0.91; 0.75). Using repeated measures t-test for the Brief COPE Scale, the only significant difference for the program group to be in planning (p = .042) and the control group showed only one significant difference in acceptance (p = .030) which is highlighted in Table 4.4.

Repeated measures ANOVA presented in Table 4.5 was also conducted for all attributes of the Brief COPE Scale and revealed significant main effects for both time and group. There was a significant interaction effect between time and group for Substance Use (p = .026). Active coping (p = .01) showed a significant main effect for time. Several main effects for group were also exposed for self-distraction (p = .01), Denial (p = .00), Substance Use (p = .01), Behavioural Disengagement (p = .00) and Venting (p = .03).

Table 4.5

ANOVA results for the Brief COPE scale

Attribute	Main effect 1 Time F (1, 102)	Main effect 2 Group F (1, 102)	Time x Group Interaction F (1, 102)
Self-distraction	0.05	6.45**	0.97
Active Coping	7.09**	0.80	0.45
Denial	0.08	19.96****	0.20
Substance Use	0.05	6.63**	5.12*
Use of Emotional Support	0.81	0.12	1.99
Behavioural Disengagement	0.03	15.16****	3.63
Venting	0.00	4.66*	0.37
Use of Instrumental Support	0.51	1.11	0.00
Positive Reframing	0.50	1.90	0.13
Planning	0.93	0.12	0.66
Self-blame	0.12	0.01	0.40
Humour	0.07	0.02	2.11
Religion	0.02	1.25	0.00
Acceptance	3.57	0.60	2.37

Brief COPE Frequencies

Table 4.6 presents subscale percentages and reveals that both the program group and the control group presented various increases and decreases in subscale scores for the Brief COPE. As with the Resilience Scale, the percentage of the students who had no change was calculated with a minimal change score by less

than 3% in either direction. The program group (*N* = 69) showed that 15.6% of students reported a decrease in Substance Use after participation in 'City to Summit'. Whereas, the control group (*N* = 42) had 24.3% of students reporting an increase in Substance Use and the program group only reported a 4.7% increase during the same time period. The percentage of scores which decreased for Behaviour Disengagement was relatively the same for the program group (39.4%) and the control group (36.6%), however, the percentage of participants in the control group (43.9 %) reported a greater increase in Behavioural Disengagement compared to the program group (25.8%). Almost half of the program group (44.8%) registered a decrease in their Venting scores, whereas the control group only had a 30% decrease in Venting. The program group showed an increase of 42.4% in Planning skills, compared to the control group who reported a 32.4% of an increase.

Percentages for both Humour and Acceptance increased more in the control group. Humour scores in the program group decreased by 40.9%, while participants from the control group only reported a 35.9 % increase in using Humour at T2, compared to only 21.2% for the program group. Acceptance showed a higher increase for the control group (41.5%) compared to the program group (31.3%) after participation in 'City to Summit'.

Table 4.6

Brief COPE percentage scores for program and control groups

Attributes	Group	% change decrease	% no change	% change increase
Self-distraction	PG	28.8	31.8	39.4
	CG	39.5	31.6	28.9
Active Coping	PG	23.9	38.8	37.3
	CG	22.5	40.0	37.5
Denial	PG	25.4	52.4	22.2
	CG	31.6	34.2	34.2
Substance Use	PG	15.6	79.7	4.7
	CG	10.8	64.9	24.3
Use of Emotional	PG	26.9	29.9	43.3
Support	CG	42.1	23.7	34.2
Behavioural	PG	39.4	34.8	25.8
Disengagement	CG	36.6	19.5	43.9
Venting	PG	44.8	22.4	32.8
	CG	30.0	40.0	30.0
Use of Instrumental	PG	35.8	25.4	38.8
Support	CG	38.5	28.2	33.3
Positive Reframing	PG	27.9	36.8	35.3
	CG	33.3	43.6	23.1
Planning	PG	25.8	31.8	42.4
	CG	32.4	31.5	32.4
Self-blame	PG	40.3	19.4	40.3
	CG	41.0	30.8	28.2
Humour	PG	40.9	37.9	21.2
	CG	25.6	38.5	35.9
Religion	PG	32.8	46.9	20.3
	CG	25.0	50.0	25.0
Acceptance	PG	32.8	35.8	31.3
	CG	17.1	41.5	41.5

Brief COPE Exploratory Factor Analysis

The original 14 subscales in the Brief COPE were designed to be analysed as separate subscales as (Carver, 1997) did not label them to be either adaptive or maladaptive coping skills. Therefore, an Exploratory Factor Analysis (EFA) was used to examine the relationships of each item and subscale in the questionnaire and to revise the existing factor structure. The EFA was based on T1 for both the program group and control group as the sample. Other research studies that implemented the Brief COPE as an instrument to measure coping have also designed alternative factor structures to evaluate the 14 subscales of the Brief COPE (Ewert & Yoshino, 2008; Hastings et al., 2005; Hussein, 2009; Kimemia et al., 2011). Previous research also supports and demonstrates the construct validity of the EFA (Duffy; Onwuegbuzie & Johnson, 2006).

Initial analysis of the Exploratory Factor Analysis.

Principal axis factoring in the EFA originally resulted in the extraction of an eight-factor structure for the 28 items, with factor loadings ranging between -.815 (Use of instrumental support) to .791 (Denial). Direct oblimin rotation converged in thirty-one iterations. Variables with loadings greater than .30 were used to interpret the factors. The EFA revealed that several of the factors did not load in direct alignment with the item structure of the measure, or as expected, therefore, logical analysis was applied to refine the EFA 8 factor structure to seven more coherent factors (Boros et al., 2000; Gorsuch, 1997). Refer to Table 4.7 for factor loading results of the EFA.

Factor's 3, 6 and 7 all retained their original structure produced by the EFA. After further analysis, Acceptance and Positive Reframing were included in Factor 8 as it appeared to relate these items. Factor 2 originally contained Acceptance as a negative score (-.392). Acceptance also scored in Factor 4 (-.303) and Factor 8 (-.384).

Although Positive Reframing loaded on Factor 8 (-.805), it also loaded on Factor 5 (-.330). The researcher used the strongest weighted score from Positive Reframing and therefore was subsequently included in Factor 8. As Factor 5 showed a lower score (-.330), it was felt that this was acceptable Acceptance and Positive Reframing items did not fit logically with the other items in other factors so were included in Factor 8.

Table 4.7

Factor loadings for the Exploratory Factor Analysis with oblimin rotation for the Brief COPE

Brief COPE Items	EFA Factor Loadings							
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Self-Distraction. Item 1: I turn to work or other activities to take my mind off things.	.357							
Active Coping. Item 2: I concentrate my efforts on doing something about the situation I'm in.	.670							
Denial: Item 3: I say to myself "this situation isn't real."		.791						
Substance Use. Item 4: I use alcohol or other drugs to make myself feel better.							-.788	
Use of emotional support. Item 5: I get emotional support from others.			-.661					
Behavioural disengagement: Item 6: I just give up trying to deal with the situation.	-.539							
Active Coping, Item 7: I take action to try to make the situation better.	.627							
Denial. Item 8: I refuse to believe the situation has happened.		.687						
Venting: Item 9: I say things to let my unpleasant feelings escape.					.342			
Use of instrumental support. Item 10: I get help and advice from other people.			-.815					
Substance use. Item 11: I use alcohol or other drugs to help me get through it.							-.756	
Positive reframing. Item 12: I try to see things in a different light, to make it seem more positive.	.342							
Self-Blame. Item 13: I criticise myself.					.735			
Planning. Item 14: I try to come up with a strategy about what to do.	.603							-.311
Use of emotional support. Item 15: I get comfort and understanding from someone.			-.582					
Behavioural disengagement. Item 16: I give up the attempt to cope.		.425						
Positive Reframing. Item 17: I look for something good in what is happening.					-.330			-.805
Humour. Item 18: I make jokes about the situation.				-.935				
Self-Distraction. Item 19: I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.		.406						
Acceptance. Item 20: I accept the reality of the fact that the situation has happened.		-.392		-.303				
Venting. Item 21: I express my negative feelings.					.583			
Religion. Item 22: I try to find comfort in my religion or spiritual beliefs.						.691		
Use of instrumental support. Item 23: I try to get advice or help from other people about what to do.			-.803					
Acceptance. Item 24: I learn to live with the situation.								-.384
Planning. Item 25: I think hard about what steps to take.	.488							
Self-Blame. Item 26: I blame myself for things that happened.					.419			
Religion. Item 27: I pray or meditate.						.783		
Humour. Item 28: I make fun of the situation.				-.815				

Note. Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 24 iterations. Variables with loadings greater than .30 were used to interpret the factors.

Coping dimension categories.

As an outcome of logical analysis and results of the EFA, each of the subscales' in the Brief COPE has been categorised as an emotion-focused or problem-focused coping skills (see Table 4.8). This is in line with Lazarus (1984)'s interpretation that coping skills that suggests coping should not be labelled either as fundamentally 'good or bad', but rather as emotion-focused or problem-focused.

Table 4.8

Emotion-focused and problem-focused coping dimensions of the Brief COPE

Coping Dimension	Subscale and item number
Emotion-focused	Self-distraction, items 1 and 19
	Active Coping, items 2 and 7
	Denial, items 3 and 8
	Substance Use, items 4 and 11
	Behavioural Disengagement, items 6 and 16
	Venting, items 9 and 21
	Humour, items 18 and 28
	Religion, items 22 and 27
	Self-blame, items 13 and 26
Problem-focused	Use of Emotional Support, items 5 and 15
	Use of Instrumental Support, items 10 and 23
	Positive Reframing, items 12 and 17
	Planning, items 14 and 25
	Acceptance, items 20 and 24

Final analysis of the Exploratory Factor Analysis.

Further logical analysis inferred that both Factor 1 and 2 should be combined to allow for similar item loading scores within Factor 1 (Boros et al., 2000). Table 4.7 outlines the original factor loadings and Table 4.9 presents the new factor structure. All other items retained their original item pattern structure produced by the EFA. Following the combining of Factor 1 and 2, the EFA resulted in a seven-factor structure in total. Therefore, all factors were constructed and moved down one numerical place. See Table 4.9 for the new factor structure labels for the Brief COPE, including the items which comprise each of the seven factors.

Table 4.9

New factor structure, labels and coping dimensions of the Brief COPE

Factor Number	Factor Label	Items Included	Coping Dimension
Factor 1	Active Coping	Self-distraction, items 1 and 19 Active coping, items 2 and 7 Denial, items 3 and 8 Behavioural disengagement, items 6 and 16 Planning, items 14 and 25	Emotion-focused *(apart from planning which is categorised as problem-focused skill)*
Factor 2	Problem-focused	Use of emotional support, items 5 and 15 Use of instrumental support, items 10 and 23	Problem-focused
Factor 3	Humour	Humour, items 18 and 28	Emotion-focused
Factor 4	Emotion-focused	Venting, items 9 and 21 Self-blame, items 13 and 26	Emotion-focused
Factor 5	Religion	Religion, items 22 and 27	Emotion-focused
Factor 6	Substance Use	Substance use, items 4 and 11	Emotion-focused
Factor 7	Positive Coping	Positive Reframing, items 12 and 17 Acceptance, items 20 and 24	Problem-focused

Brief COPE Internal Consistencies

The overall Cronbach's alpha for the Brief COPE Scale was (α =.78). Reliability was calculated for the EFA's seven factors of coping. Subscales with moderate coefficients were Active Coping (α = .67), Emotion-focused (α = .66) and Positive Coping (α = .65), while Problem-focused (α = .83), Humour (α = .79), Religion (α = .79), and Substance Use (α = .89) all revealed strong coefficients.

Correlations

Correlations between the five subscales of resilience in the Resilience Scale were calculated and presented in Table 4.10. As expected, all attributes of resilience had strong significant correlations to one another as well as to Overall Resilience. In terms of convergent validity, all five Resilience Scale attributes correlated significantly and positively with each other.

Correlations of the new factor structure for the Brief COPE identified through the EFA (Active Coping, Problem-focused, Humour, Emotion-focused, Religion, Substance Use and Positive Coping) were also calculated and presented in Table 4.10. Convergent and divergent validity was demonstrated through a range of correlations found between the factors identified in the Brief COPE EFA. Strong positive correlations were found between Emotion-focused and Active Coping (.51) factors. Three moderate positive correlations were found for Positive Coping with three other factors; Active Coping (.47), Problem-focused (.38) and Humour (.30). Active Coping and Problem-focused (.31) factors, also revealed a

moderate positive correlation. Substance Use demonstrated a small positive correlation with both Emotion-focused (.27) and Religion (.26) coping factors. Some evidence of a relationship was found between Humour and Active Coping (.27), Emotion-focused and Problem-focused (.20), and Positive Coping and Emotion-focused (.27) factors which demonstrated small positive relationships.

Convergent and divergent validity between the subscales of the two measures was demonstrated through a range of correlations found between the factors identified. A moderate positive correlation was found between Positive Coping and Perseverance (.30). All other correlations found between the Brief COPE factors and the Resilience Scale subscales revealed small positive relationships, apart from the Emotion-focused factors, which showed a small negative correlation with Self Reliance (-.20) and Equanimity (-.27). These small negative relationships between the Brief COPE and the resilience subscales demonstrate the divergent validity.

Table 4.10

Correlations between the Resilience Scale subscales and EFA factors of the Brief COPE

Correlations													
		Perseverance	*Self-reliance*	*Existential Aloneness*	*Equanimity*	*Purposeful Life*	*Resilience*	Active Coping	Problem-focused	Humour	Emotion-focused	Religion	Substance Use	Positive Coping
Perseverance	=*r*	1												
Self-reliance	=*r*	.71**	1											
Existential Aloneness	=*r*	.53**	.56**	1										
Equanimity	=*r*	.61**	.53**	.41**	1									
Purposeful Life	=*r*	.60**	.55**	.51**	.55**	1								
Resilience	=*r*	.65**	.53**	.54**	.44**	.52**	1							
Active Coping	=*r*	.21*	.07	.17	.16	.10	.17	1						
Problem-focused	=*r*	.24*	.08	-.07	.15	.14	.12	.31**	1					
Humour	=*r*	.04	.12	.07	.05	.23*	.10	.27**	.15	1				
Emotion-focused	=*r*	-.18	-.20*	-.11	-.27**	-.20*	-.13	.51**	.20*	.15	1			
Religion	=*r*	.01	-.04	.13	.06	-.03	.09	.20	-.04	-.01	.03	1		
Substance Use	=*r*	-.16	-.00	.04	-.04	.03	-.22*	.22*	.09	.14	.27**	.26**	1	
Positive Coping	=*r*	.30**	.23*	.20*	.14	.26**	.34**	.47**	.38**	.30**	.27**	-.05	-.09	1

Quantitative Discussion

In response to Research Question 1, there were several resilience attributes and coping skills that were enhanced after participation in the extended secondary school outdoor education program, 'City to Summit'. In terms of Overall Resilience, an interaction effect was observed between time and group. The repeated measures t-tests revealed significant differences for Overall Resilience. The follow-up t-tests indicated that despite similar levels of Overall Resilience at T1, the groups differed at T2 where the program group reported greater resilience than the control group. These results indicate that participation in 'City to Summit' had a significant impact on the program group as their levels of Overall Resilience increased immediately after participation in the program.

These results are consistent with the findings of Booth's (2015) study who also reported a small, positive increases in participants levels of resilience (d = 0.20). However, while the average levels of resilience increased in participants at T1 (M = 3.42) compared to T2 (M = 3.56), participants initial scores indicated that they were already moderately resilient before the program. It is also important to note that this study did not use a comparison group to compare data.

In addition, these findings are also supported by Neill and Dias's (2001) study, which reported all participants showed positive changes in their resilience with a large effect size observed. Similarly, their study reported a significant interaction between time and group, where the experimental group reported a greater change in resilience compared to the control group. An interaction

between time, group and gender was also reported which indicated that the changes in resilience were consistent across gender (Neill & Dias, 2001). However, the main difference was that this study did not use gender as a variable and was only focusing on males. In contrast, not all participants in the current study showed positive changes in their scores in Overall Resilience and the resilience attributes, but rather as a whole the program group increased in Overall Resilience scores compared to the control group.

In terms of separate resilience attributes, the results of the repeated measures t-tests revealed significant interaction effects between time and group in three out of the five resilience attributes: Perseverance, Existential Aloneness, and Purposeful Life. This was an anticipated result as the program challenges presented to the participants during 'City to Summit' required them to apply and practice these assets in order for them to manage the difficulties during the program.

The process of facing these challenges required individuals to have the determination to persist with the challenge despite adversities or disappointment. The challenges presented required the participants to practice and develop Perseverance, allowing them to continue to be engaged in the challenge through showing self-discipline and determination, despite being discouraged by challenging situations that were presented to them (Wagnild, 2009, 2010; Wagnild & Young, 1993). The increases in Perseverance scores in this study are also consistent with the findings of Ewert and Yoshino's (2011) study, that also

indicate short-term expeditions may enhance participants' levels of Perseverance and Overall Resilience.

It was an anticipated result that the program group showed increases in scores for Purposeful Life, as the experiential learning processes experienced during the program allowed opportunities for solo time, reflection, journal writing and critical questioning. This allowed opportunities for participants to further understand their purpose in life, their life goals and how these can be achieved in challenging times and adverse conditions (Wagnild, 2009, 2010; Wagnild & Young, 1993).

The follow-up t-tests showed differences after 'City to Summit' with the program group reporting higher Existential Aloneness than the control group. These results may have been impacted upon by the program group participating in an overnight 24-hour solo experience during 'City to Summit'. As Wagnild (2010) describes, Existential Aloneness is about knowing one's self and being 'comfortable in your own skin'. The solo experiences during 'City to Summit' gave the program group an opportunity to be alone and reflect that it is them who makes your choices and life decisions (Wagnild, 2009, 2010; Wagnild & Young, 1993). Even though experiences may be shared with others, some experiences in life must be faced alone.

A comparable program that used challenging expedition type experiences to enhance levels of resilience was detailed in Gillespie and Allen-Craig's (2009) study involving at-risk male adolescents. Similar to (Neill & Dias, 2001), their investigation also used the 15-item Resilience Scale to measure changes in

resilience scores after participation in a 5-week wilderness therapy program. Gillespie and Allen-Craig (2009) reported a moderate to large positive effect size of resilience scores. Similar to the results of this study which indicate that extended journey style outdoor education programs have a positive effect on levels of resilience, their results also indicate that participation in extended wilderness therapy programs can help youth at risk increase their resilience.

It is important to note that there is also contradicting evidence which indicates that not all studies investigating the impacts of outdoor education programs on levels of resilience and coping have yielded positive effects. Skehill's (2001) similar study using the 15-item version of Resilience Scale to measure resilience levels in Year 9 adolescents during an Extended Stay Outdoor Education Program found no effects on resilience, nor on participants' levels of well-being or distress.

Comparable to this study, the findings of the literature review presented in the previous chapter, reveal that Yoshino (2008) and Booth's (2015) studies are the only two of its kind that used have used both the Resilience Scale (Wagnild & Young, 1993) and a similar coping measure concurrently in their research to measure the impacts of outdoor education programs as the intervention to foster resilience and coping with young people. In addition to the Resilience Scale, Booth (2015) used a modified version of the original COPE Inventory (Carver et al., 1989), whereas Yoshino (2008) used a modified version Brief COPE Scale (C. L. Park & Blumberg, 2002), and this study used the original version of the Brief COPE Scale (Carver, 1997). However, in addition to these two measures,

Yoshino's (2003) study also used the Stressor Inventory (Robinson & Stevens, 1990), Stress Appraisal Measurement (Peacock & Wong, 1990), perceived success (Skehill, 2001), and Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996) to measure how a hypothetical model explained the impacts and influences of stress appraisal, coping responses, and perceived success of participants levels of psychological growth.

The results from the repeated measures ANOVA derived from the students' completion of the Brief COPE Scale revealed significant main effects for both time and group. Active coping showed a significant main effect for time, indicating that participation in 'City to Summit' may have influenced the development and application of Active Coping skills in order for the program group to manage the difficulties presented to them during the program. Several main effects for group were also exposed for Self-Distraction, Denial, Substance Use, Behavioural Disengagement and Venting. However, only two coping skills changed over time and between groups; Substance Use and Behavioural Disengagement.

There was a significant interaction between time and group for Substance Use. Follow-up t-tests indicated that despite no differences between groups at T1, at T2 the program group reported coping less through substance use compared to the control group. This may have been influenced by the difficulty for participants in the program group to access substances to use between T1 and T2 as they were immersed in a school controlled program in a wilderness setting. It is also important to note that while the program group was participating in 'City to

Summit', the control group was being administered their end of year exams. This may have put further stress on the control group which could have impacted the coping skills they used during this period (Misra et al., 2003).

This trend was repeated for Behavioural Disengagement. Although the interaction was not significant, the pattern of descriptive scores inferred a decrease in Behavioural Disengagement at T2 for the program group compared to the control group which increased at T2. The decrease may have been achieved due to the program group participating in new, exciting, challenging and adventurous experiences during 'City to Summit'. While the increase in Behavioural Disengagement with the control group may have been negatively influenced by the distraction of requirements of their end of year exams.

The only significant difference for the Brief COPE Scale was disclosed in by the repeated measures t-test which revealed that the program group showed a significant difference in Planning and the control group showed only one significant difference in Acceptance. Interestingly, the whole program group increased their scores in Active Coping, and Planning, and decreased their scores in two emotion-focused coping skills; Substance Use, and Behavioural Disengagement. This may have been influenced by the program group participating in daily skills, tasks and challenging situations requiring them to develop and practice skills such as planning and activity coping to help them to manage difficulties consistently over the course of three weeks. It is also important to note that while it is suggested by Carver (1997) not to label the coping skills measured in the Brief COPE scale as either maladaptive or adaptive,

both Substance Use, and Behavioural Disengagement have the potential to undermine well-being, and Active Coping, and Planning can be viewed as positive effective coping skills which have the potential to enhance well-being Lazarus and Folkman (1984).

Consistent with these results, Booth (2015) also reported the application of problem-focused coping skills, such as Active Coping (M = 2.66; SD =.57) and Planning (M = 2.54; SD =.66) to be in the top 5 coping strategies used by participants. A reduction in scores of two emotion-focused coping strategies (acceptance and venting of emotions during the program) was revealed and was found to be associated with a 13% positive change in psychological resilience. These findings support the results of this study that also showed a significant reduction of two emotion-focused coping skills; Substance Use and Behavioural Disengagement for time and group. However, while the boys in the program group reported coping less (p = .001) through Substance Use (M = 1.30; 1.15, SD = 0.74; 0.45), this reduction may have been influenced by the lack of accessibility to substances available to them when they are immersed in a wilderness setting.

With regards to the control group, it is important to point out that the boys within the control group were sitting their school exams at the time the quantitative data was collected. Results showed the control group reported a 33.3% increase, 35.7% decrease and 31% showing no change in resilience scores at T2, indicating that some individuals were able to adapt to the stressors, while others found it more difficult. The variance in these results may have been contributed to by increased academic pressures which could further perpetuate

levels of stress due to self-expectations and standards of performance deemed necessary to succeed; testing their resilience capacity and requiring them to apply various coping strategies in responses to the stressors.

This investigation used EFA to reveal seven factors within the Brief COPE. While three factors in this EFA retained their original structure, there were four factors still requiring further logical analysis. This may have been due to several different influences, including the students' age (14-17 years) and the variance in how the participants comprehended the detail of 'items' within the Brief COPE, such as 'Item 20'. In comparison to other studies using the Brief COPE, Yoshino (2008) used a confirmatory factor analysis (CFA) with Principal Axis Factoring within a modified version of the scale. Compared to the seven factor solution revealed in this study, Yoshino's study resulted in four factors named 'social support', 'problem-focused', 'self-distractive', and 'less-constructive', and accounted for 46% of the variance in the sample group.

In terms of correlations, it was expected and reported that all attributes of resilience had strong relationships with one another as well as with Overall Resilience. These results are also indicative of convergent validity in that all five Resilience Scale attributes correlated significantly and positively with each other. These strong relationships may be related to the participants from the program group demonstrating various other internal assets that resilient people have been identified to acquire, such as self-esteem (Dumont & Provost, 1999), self- efficacy (Bandura, 1977), self-acceptance, adaptability, responsibility or their ability to regulate their emotions (Miller, 2016).

The researcher also predicted strong positive relationships between the Emotion-focused and Active Coping factors. These strong correlations may have been impacted by the fact that all the items in the two factors consisted of strategies from the emotion-focused coping dimension (see Table 4.9). This also may have been influenced by participants demonstrating other emotion-focused coping strategies such as humour, demonstrating empathy or having faith (Miller, 2016).

Conversely, instead of consisting of strategies from the emotion-focused coping dimension, all the items in the Positive Coping and Problem-focused factors consisted of strategies from the problem-focused coping dimension (refer to Table 4.9). These two factors revealed a moderate positive relationship which may have been affected by participants demonstrating and developing other problem-focused coping skills such as their ability to regulate their behaviours, solve problems, apply communication skills and show self-awareness (Bandura, 1986; Benard, 2004; Masten, 2001; Miller, 2016). Problem-focused coping skills are seen to be more effective than emotion-focused coping for long-term stressors or challenges that exist over an extended time frame, such as managing emotional stressors of being away from home for three weeks for the first time. This is because problem-focused strategies generally address the causes of challenge or stress in practical ways and aim to deal with the challenge and reduce the stress (Breinbauer & Maddaleno, 2005).

Positive Coping also revealed moderate positive relationships with two other factors; Active Coping and Humour. These factors primarily involve

strategies from the emotion-focused coping dimension (see Table 4.9) and may have been influenced by the development and application of other internal assets such as confidence, optimism and hope (Benard, 1991, 1995, 2004).

Positive Coping and Perseverance revealed a moderate positive correlation and these factors conversely involved strategies from the problem-focused coping dimension (see Table 4.9). This may have been influenced by participants needing to apply a broad range of other practical, problem-focused strategies such as problem-solving or time management skills to manage challenges. This moderate relationship may have also been affected by participants' in the program group being required to apply other resilient characteristics such as determination or persistence (Miller, 2016).

In terms of the Brief COPE subscales and the Resilience Scale attributes, there were small negative relationships demonstrating the divergent validity. This was an expected divergent relationship as the Emotion-focused factor includes items from the Venting and Self-Blame subscales, which would be predicted to negatively correlate with items such as Self-reliance and Equanimity as these are factors which increase a participant's likelihood to demonstrate resilience.

Chapter Summary

This chapter presented the quantitative results from Phase I and addressed the research question investigating which attributes of resilience and coping were enhanced through participation in an extended secondary school outdoor education program. Based on the results provided in this chapter, it was

determined that Overall Resilience increased in the program group immediately after participation in ‘City to Summit’, compared with the control group who did not report any significant changes. Existential Aloneness, Perseverance and Purposeful Life were the three resilience attributes that showed significant increases for the program group after participation in ‘City to Summit’. The program group showed reductions in coping skills that have the potential to undermine well-being in youth, such as Substance Use and Behavioural Disengagement, while increasing in problem-focused coping skills, such as Active Coping, and Planning after participation in ‘City to Summit’.

The findings from Phase I reinforce that participation in an extended journey style outdoor education program does in fact increase scores in Overall Resilience. These findings are also supported by previous research which has shown that resilience and coping can be enhanced through participation in outdoor education programs (Gillespie & Allen-Craig, 2009; Neill & Dias, 2001). However, existing research is yet to identify if secondary school students draw upon the enhanced resilience attributes and coping strategies achieved through participation in outdoor education programs in other contexts of their lives, or if these attributes are context specific, and only drawn upon in an outdoor setting. These questions will be addressed in the next Chapter which presents the results of Phase II and Phase III and provides a discussion of the interrelationships of the main themes. Chapter 6 will present the final discussion linking the quantitative and qualitative results.

CHAPTER 5: QUALITATIVE RESULTS- PHASE II & PHASE III

A journey of a thousand miles begins with one step

– Lao Tzu

Figure 5.1. The last day of the journey.

As noted in Chapter 4, this study employs a mixed methods approach, using both quantitative and qualitative methods. The previous chapter summarised the results from Phase I's quantitative section of the study. This chapter presents Phase II and Phase III's qualitative results from the analysis of the participant interviews and the field observations, using the active voice of the participants to support the analysis. Images of the observation group's experience are dispersed throughout this chapter to give context of the program, the group, and the natural environment. The images also support the participants comments about their program experiences. The next Chapter discusses the insights and relationships

between the quantitative data presented in the previous Chapter and qualitative themes outlined in this chapter.

Phase II and Phase III: Qualitative Data Results

Semi-structured interviews were chosen for this research as it allowed the researcher to 'tap into the experience' using the participants' normal language (Guba & Lincoln, 1988c). The interviews also enabled exploration of the participant's perspectives and provided a first-hand understanding of their application of resilience attributes and coping skills to the program challenges (Ungar, 2003). These findings also provide insights about the changes identified through the quantitative data (Denzin & Lincoln, 1994; Guba & Lincoln, 1988a, 1988c; Windle et al., 2011).

The major themes, concepts and findings of Phases II and III are discussed and analysed in consideration with the following three philosophical principles:

1. Our interactions with the environment can impact our construction of knowledge and influence our personal awareness or understandings;
2. That cognitive conflict or puzzlement is the stimulus for learning and determines the organisation and nature of what is learned and;
3. That knowledge evolves through social negotiation and through the evaluation of the viability of individual understandings (Savery & Duffy, 2001).

Data from one observation group and four interview groups were analysed in the qualitative phase of this research.

Table 5.1 provides the pseudonyms for the thirteen students from Group 9 who were observed by the researcher in Phase II.

Table 5.1

Group 9 participant pseudonyms

Observation Group Pseudonyms		
Syed	Bob	Tan
Scott	Ahmed	Joshua
Conrad	Isaac	Cooper
Jack	Dale	Noah
Ian	Group leader	Researcher

Four small groups of students participated in the semi-structured interviewed and are labelled as Group A, B, C or D. The eighteen students interviewed came from seven of the 17 activity groups that completed the program (see Table 5.2). These groups were interviewed twice. The first set of interviews were conducted the week after completion of 'City to Summit' and the second set of interviews were conducted six months later (see Appendix P for the Interview Schedule).

Table 5.2

Participant pseudonyms: Interview and activity group breakdowns

Small Group Interview Pseudonyms	Activity Group	Interview Group
Brodie	10	A
Matthew	10	A
Elliot	10	A
James	11	B
Tristan	11	B
Reece	11	B
Robert	11	B
Greg	12	B
Zac	13	C
Chris	13	C
Jake	13	C
Lachlan	14	C
Oliver	14	C
Mark	15	D
Frank	15	D
Kevin	16	D
Jason	16	D
Cody	16	D

Three cycles of qualitative data analysis were conducted to identify themes relating to the student's program experience, their resilience capacity and coping skills. Nvivo computer analysis program was used to explore the data with the first cycle revealing 54 parent codes and 33 child codes (see Appendix S). During

the second cycle, key relationships were analysed, and all parent and child codes were broken down into 50 first-order themes and seven second-order themes (see Appendix T). The final cycle of the analysis of the data identified five major themes (see Table 5.3).

Table 5.3

Results and overview of the five major qualitative themes

Theme	Overview
1. Challenge	Common events, activities or situations that the students perceived to be difficult.
2. Response to challenge	This theme is associated with the participants responses, and their application of resilience attributes, problem-focused coping skills and emotion-focused coping skills to the challenges they identified during 'City to Summit'.
3. Personal development	The personal development theme focusses the on the participants' understandings of what they learnt, the self-reported increases of internal developmental assets and how they personally changed during the program. The theme also uncovers the participants heightened awareness and appreciation of one's circumstances, privileges and relationships with family.
4. Relationships	Relationships theme is about the development of external developmental assets, such as, the participants connection with their peers, their group, the teachers on the program, the group leaders and the natural environment
5. Transfer of learning	This theme relates to the transfer of learning and the student's insights six months post-program. It involves the students recognising if learning identified from the program was maintained and if they were able to apply these skills in other contexts of their lives six months after completing 'City to Summit'.

The presentation of the data in this chapter is divided into two sections. Firstly, the five major themes are presented which focus on what occurred during and after the program. This section provides detailed descriptions of each theme and specifies the results identified from the data analysis in Phase II and Phase III. The second section expands the themes and discusses the interrelationships between the themes. Lastly, a chapter summary is presented which provides an overall compilation of the significant qualitative results.

Theme 1: Challenge

As described, the 'City to Summit' program was included in Yarra School's Year 10 curriculum as a platform to provide students with personal challenges. The program design presented targeted activities over the course of the journey for the boys to encounter. These challenging activities ranged from adventure activities that were used for modes of transport to move the groups to different campsites, such as hiking, mountain biking and rafting; to everyday challenges that the wilderness environment presented, such as setting up camp each day or dealing with adverse weather conditions.

The school's objectives of presenting challenges throughout the program appears to have provided the boys with opportunities for personal growth. It was observed that exposure to program challenges assisted the boys in strengthening their developmental assets, such as resilience and independence. Not surprisingly, each person engaged with these challenging situations differently. Some students found the level of the program challenges to be more difficult, while others found

the same program challenges to be quite manageable. The program challenges varied in type, length and level of difficulty which required the boys to draw upon on different aspects of their personal attributes and resources. The types of challenges have been identified and collated into three key areas; physical, emotional and social challenges.

Table 5.4 presents a summary of the three types of challenge areas identified. It is important to note that although the challenges can be classified into three distinct types, the program challenges influenced participants more holistically than just drawing on a specific attribute or type of challenge. For example, the challenge presented may be physically demanding, but it may also require the participant to draw on their emotional capacities or social resources to manage the difficulties presented. The following sections describe and provide supporting evidence of the physical, emotional and social challenges that the program presented to the participants.

Table 5.4

Types of challenges, definitions and participant comments

Challenge Type	Description of Challenge Type	Examples of Participant's Comments
Physical challenges	Physical challenges represented activities that drew on qualities associated with a person's physical capacities, including strength, stamina and endurance. These challenges were connected with a person's body, rather than with their mind. Physical challenges were tangible or concrete goals such as getting to the top of a mountain or riding a bike for 8 hours to get to the next camp.	*Conrad: I feel weak and I have no energy (Descriptive Diary: Day 3).* *Ian: Everything was hurting on the hike. My hips, my shoulders and especially my feet (Descriptive Diary: Day 3).*
Emotional challenges	Emotional challenges were identified by situations where participants felt or outwardly demonstrated emotional responses to the program challenge, such as crying, anger or frustration. Participants identified emotional challenges to be mental challenges that required cognitive capacities such as acts of thinking, discussing approaches, and wrestling with ideas rather than physical action. Emotional challenges required participants to apply mental processes to manage their emotional responses to the challenge.	*Reece: I think it was like six hours of just flat water [when rafting in inflatable kayaks in pairs] and I got really frustrated and bored. And I got a bit angry and decided, huh, I'm having a bit of a, what's the word?* *Greg: Sook.* *Reece: Yeah. A bit of a sook. A bit of a tantrum… I don't even know why I got so angry (Group B: Interview 1).*
Social challenges	Living in close proximity with a small group of peers in an environment different to their urban lifestyles provided social challenges. These included managing the dynamics of the group, dealing with conflict and situations requiring tolerance.	*Lachlan: Well, the thing I found most challenging was being around the same amount, like the same group of people of a long period of time (Group C: Interview 1).*

Physical Challenges

Participants identified physical challenges as something that impacted on their bodies and caused some sort of pain or feeling physical discomfort. The boys agreed that certain experiences were more physically demanding than others. During the mountain biking, students were observed to be physically struggling the most (Observation Diary: Day 10). This observation was consistent with comments from all eighteen boys interviewed, revealing that the mountain bike riding section was perceived to be the most physically demanding experience of the program. This was not a surprise as the mountain biking section consisted of cycling over 45km predominately uphill. Figure *5.2* shows the boys in Group 9 preparing to cycle the 45km uphill section of the mountain biking leg. Matthew's comment summarised how the boys responded to the bike riding:

> *The most physically challenging thing would have to be the bike riding. Um, I was sorta in the same position that Brodie was. I just really struggled, and then I sorta kept telling myself just push it a little bit, push it a little bit and then yeah, I finally got up the top (Group A: Interview 1).*

The researcher observed most participants in Group 9 struggling, being out of breath and complaining of muscle pain in their legs. Many of these boys gave up and walked up the steep hills as they found the challenge of riding too difficult and the pain unbearable (Observation Diary: Day 9 & 10). For instance, Joshua comments that:

I remember the pain in my legs when I was mountain biking. Supposedly you can't remember pain, but I'm telling you, you can! (Descriptive Diary: Day 15).

Figure 5.2. Group 9 on the mountain biking leg.

The researcher also observed students physically struggling during some of the hiking sections, especially the steep uphills and downhills (Observation Diary: Day 13). In the 6km uphill hiking section to the top of 'Mount Misery', most students commented that this section was physically demanding. For example:

Zac: To be honest the…what I found difficult, like in a physical sense, was that one day where it was just 6km nonstop uphill and like no one was talking cause it was literally like we were really tired…

Researcher: Was that up Mount Misery?

Zac: Yeah. And yeah, everyone wasn't talking, and everyone sort of just got really depressed (Group C: Interview 1).

Figure 5.3. Students resting after hiking to the top of Mount Misery.

While hiking participants were observed complaining about pain in their shoulders, feet and legs (see Figure *5.3*). Most students commented about feeling constant pain in their backs from carrying heavy backpacks (Observation Diary: Day 13). However, whilst the mountain biking and steep hiking sections were perceived as the most physically challenging experiences of 'City to Summit', these same experiences also created emotional and social challenges. These challenges are discussed in the following sections.

Emotional Challenges

Most of the time, emotional challenges occurred when either the participants found that a challenge was physically demanding (e.g., when they

were feeling pain), when they could not control the situation (e.g., they could not just leave the program or control what another person was doing) or if the mental challenge of managing their discomfort was too much for their mind to handle (e.g., fear responses or continual negative self-talk). When participants spoke about emotional challenges, they related this to anything coming from the mind.

Both emotional and mental challenges required the participants to cognitively manage internal emotional responses or external responses that others could see or identify. Many students outwardly displayed emotional responses such as frustration and anger when confronted with a challenging situation. For example, Conrad explained *"yeah, I was pretty angry. I was frustrated with the leaders as we had missed two campsites and we were only supposed to walk two kilometres. And I was frustrated with myself because I kept walking and I didn't care about the group. I really didn't deal with it"* (Descriptive Diary: Day 18). Interestingly, 17 of the eighteen participants interviewed identified the whole experience as being more mentally demanding than physically demanding. For instance, Chris stated:

> *Well, it was a good experience. Something I probably won't do ever again at the same level. But it was definitely mentally challenging more than physically (Group B: Interview 1).*

As the above comment indicates, the boys seemed to use the term mentally challenging when they were referring to both emotional and cognitive responses to the challenges presented. For instance, even though Kevin describes the program to be more of a mental challenge, his comment below indicates that it

wasn't that the program challenges were cognitively demanding for him, but rather that the program challenges elicited emotional responses, such as anxiety, fear and frustration.

> *Kevin: It wasn't actually that physically challenging if you think about it. It was like more a mental challenge.*
>
> *Researcher: What sort of things did you find mentally challenging?*
>
> *Kevin: I reckon just the time of being away from everything…I remember saying to myself at the start 'you have three days down, there are however more many to go'. And just the monotony of it, if you don't focus on what's actually going on. That was my main challenge (Group D: Interview 2).*

The length of 'City to Summit' and time away from home was a common emotionally challenging aspect for most students observed and interviewed. Not only were participants immersed in an unfamiliar environment, but they were also surrounded by a group of people they did not know very well. In each group, some students knew each other well, however, the Yarra College teachers hand-picked the groups to ensure groups consisted of a mix of students who did and did not know one another. Many of the participants had experienced being away from their home environment for long periods, such as when holidaying with their families, but most participants had not spent this length of time away from their families. Sixteen out of the eighteen boys commented on how the length of 'City to Summit' challenged them throughout their experience. As Ian put it,

> *This whole camp is challenging to be honest. Everything about it is challenging. Being away for this long is the longest I've ever been away. The longest I've been away is like five days. I also hate camps, so everything about this experience is challenging (Descriptive Diary: Day 14).*

Occasionally these emotional challenges would elicit a physiological response such as feeling, crying or not understanding why their bodies, feelings or emotions were responding in certain ways. Certain challenges and situations were new experiences and participants didn't know how they were going to respond. For instance, when Ian commented, *"I'm not feeling well today. I feel homesick. I'm really missing my mum and just being indoors"* (Descriptive Diary: Day 11).

At times participants demonstrated that emotions got the better of them and they found it difficult to control their responses. This is illustrated by Scott's apology below, following an emotional outburst at camp. Scott was nominated as one of the leaders for the last day of mountain biking. He was observed yelling and swearing in frustration at four boys who were laying around camp and not contributing to the daily group tasks when the group arrived at camp (Observation Diary: Day 10):

> *Scott: I want to apologise for the way I behaved this afternoon. I was just really tired and emotional. Then I just snapped. I'm sorry. I'm not normally like that. That's not me. I'm really sorry (Descriptive Diary: Day 10).*

Interestingly, this situation occurred at the end of the mountain biking section day, which was identified by most participants as the most physically challenging activity of 'City to Summit' program. This example provides evidence that some of the program challenges were more demanding experiences than the participants have encountered in the past, thus stimulating strong emotional responses.

The 24-hour solo activity proved to be an emotional challenge for most boys. When a group leader asked their group how comfortable they felt about going out into the bush and spending the night alone during the 24-hour solo experience, the boys replied with a range of responses with over two thirds of the group commenting that they were feeling a bit anxious to very anxious (Observation Diary: Day 11). Before the experience, the boys appeared to be very apprehensive about the challenge, as most students had never spent that amount of time alone and especially not in a wilderness setting (Observation Diary: Day 11). The issues that appeared to scare the boys the most was being alone in an isolated, unknown environment, not being able to ask someone else for advice and having to make decisions on their own. As Chris explained, one of his greatest difficulties was having to rely on his own judgements and decisions:

> *I found it [the solo] pretty hard, and there were times that you realised you really needed someone for advice (Group B: Interview 1).*

The boys seemed most worried about how they were going to manage through a whole 24-hours making their own decisions and completely relying on

their own abilities to support themselves. The solo experience was a novel situation for participants, as normally the boys would have access to ask peers, family or teachers for advice, but in this case, they were forced to make decisions on their own.

Whilst Zac felt that the solo was a confronting experience that made him very nervous, he also saw the value of solo time in developing his independence and self-reliance:

> *Personally, I was kind of nervous… Well, I didn't realise you were completely isolated, so obviously I was a bit nervous [about the solo]…But I think 'City to Summit' was kind of character building for me. It was the main thing we were there for… Kind of getting a new experience of what it's like being by yourself for that long…Uh, personally, I think it just made me independent.... Having to not like always get things your way (Group C: Interview 1).*

Many of the boys commented that the solo was a mentally challenging experience (Observation Diary: Day 12). However, their comments seemed to refer to the emotional challenges that the experience provided, such as the fear, anxiety and self-doubt. Some students felt increases in levels of anxiety as they were also worried about being alone with 'wild animals'. Such as Cody who had a fear of animals and snakes:

> *I think everyone was a bit scared, but I was really scared cause there were wild animals all around… Solo time was really hard for me because I'm shit scared of snakes. I saw four snakes. That was really scary, and you know, I was away from everyone else. I usually like to be close to people instead of um away… (Group D: interview 2).*

Cody's comment indicates that his major fears were focused on worrying about how he would deal with a situation if he was confronted with wild animals or if something was to go wrong. An example of the wild animals Cody is referring to is demonstrated in Figure *5.4* which shows the wild brumbies that were found around campsites in the high plains. These Brumbies were very protective of their areas and had previously stampeded through Group 9's campsite.

Figure 5.4. Wild Brumbies in the high plains.

Social Challenges

Outdoor education programs provide a perfect platform for a social development (Ewert & McAvoy, 2000; McKenzie, 2000; Sibthorp et al., 2007). Placing a small group of Year 10 boys in an unknown environment, living together in close proximity with people they don't know well, whilst undertaking new and challenging experiences, provided groups with many difficulties to manage. Each of the 17 activity groups was made up of 12-14 boys, which created their social group for their 'City to Summit' experience. The mix of the boy's personal backgrounds, personalities and past experiences influenced how the group dynamics developed, how they dealt with conflict and responded as a group to the program challenges presented. Group dynamics were also influenced by the individual's responses to the challenges presented to them (Observation Diary: Day 10, 15, 20).

A common social challenge identified by all interview groups was the challenge of having to live and work together in the same small group for three weeks. Living and working together in small groups, formed the foundation of 'City to Summit' and required the boys to develop trust with one another over the course of the program (see Figure 5.5). Although 'Day 0' involved the groups participating in initiative and teamwork activities, that were designed to commence building trust amongst the group, it was clear that groups would take time to develop their capacity to trust one another (Observation Diary: Day 1). This was evident early in the program, as the boys struggled to trust one another

with certain tasks and activities such as navigation and setting up camp (Observation Diary: Day 1).

Figure 5.5. Group 9 undertaking teamwork and initiative activities designed to build trust.

In the comment below, Greg indicates how he struggled to trust the group at the start of the program. However, as the program continued, he found that the more the group shared new experiences together, the more his levels of trust increased:

> *One big one [issue] for me was learning to trust people a lot more. Like um at the start, I didn't trust people with jobs to do. Like, mainly cleaning… Yeah and by the end [of 'City to Summit'] I think I was a bit more lax about, you know, letting people um clean and stuff. I think we all learned how to stay in the routines set, like*

washing your hands before cooking and all of that and I learned to trust everyone a bit more (Group B: Interview 2).

Social challenges became apparent when group trust was required but not displayed, such as when the group needed to trust the boy who had the role of being the navigator to direct the group to the correct path during hiking sections. This was apparent in the first week when boys displayed signs of distrust in each other, leading to group conflict (Observation Diary: Day 4). This was seen on the first day of the program when Syed had the lead role of navigating and giving the group hiking directions up a steep hill from Windy Corner to the Aqua Duct in the Victorian high country. The group's behaviour made it obvious that the group did not trust Syed as they were yelling at him and questioning his ability to make the right decision (Observation Diary: Day 1). The group questioned his navigation skills, yet no one else was willing to share the responsibility of navigating or take on a leadership role. Some of the participants in Group 9 would say things like, *"Syed, if we are walking up this hill for no reason, I'm going to kill you. If we get lost, it's your fault"* (Descriptive Diary: Day 1).

Syed tried showing the group where they were on the map, and he tried to explain what the group needed to do, but nobody wanted to follow him. The group became completely separated, with some of the group running to the top of the hill, while others were walking at a 'snail's pace'. The entire group was complaining, yelling at one another, looking for other people to blame, and no one else was taking ownership or responsibility for the situation. It wasn't until the group reached the top of the hill and made it to the correct track junction, that

everyone stopped complaining (Observation Diary: Day 1). After Syed had successfully guided the group on the right path, the group started to trust him. Figure *5.6* shows the group feeling very happy with Syed for navigating their group to the correct track junction at the top of the hill. Over the next few days, Syed was asked by the group to help them with their navigation skills when it was their turn to lead the group. Nobody in Group 9 questioned Syed about his navigation ability again (Observation Diary: Day 5).

Figure 5.6. Day 1: Arriving at the first track junction.

Group B also struggled with navigation issues, which caused social challenges amongst the group. Their comments indicate how factors such as physical challenges of walking uphill, the strength of peer relationships and the level of trust towards one another can influence the level of difficulty a challenging activity presents.

> *Kevin: The first day of hiking after the solo, was our worst day [for group issues].*

Jason: Was it the day we got lost?

Kevin: It was the day that we had to go through that forest and then we got lost, and it was all uphill, and everyone was just fighting with each other. That was pretty bad. Everyone got frustrated… (Group B: Interview 1).

It seemed that individuals who took on leadership and navigation tasks also faced social pressures to perform and lead their peers on the right path. Figure *5.7* shows a student from Group 9 seeking navigation assistance from the group leader. As Tristan explained, some participants that were in a leadership role identified that they were scared of failing when the group needed to rely on them. His comment below indicates that as the program unfolded and boys within their activity groups started to develop trust between each other, it seemed to become easier for individuals to assume a leadership role:

Um, I definitely found it hard when I was on nav. It was like the second day or third day, and I'd never really done any big navigating with the whole group before. And of course, like it's probably easier for other people, but I had to navigate through like hills and mountains off track through like, some marshlands, up like a mountain, like uphill. And it was horrible. Like, every step would be like 'slosh, slosh, slosh' and different like gradients and stuff. It was just really annoying… And I kind of had to rely on myself. And in the end, it paid off. Like, we got to our destination.

But at that time, I was really scared cause the group was just like following me and to be honest, I didn't really have a clue where I was going (Group C: Interview 1).

Figure 5.7. Seeking navigation assistance from the group leader.

The compulsory element of the program influenced group dynamics as the students were not able to choose which participants were in their groups. This meant that students faced the challenge of living with people they did not necessarily know in an environment that was not familiar for 21 days. Living in close proximity with each other, tested participants tolerance levels and understanding of one another. Figure *5.8* provides an example of Group 9's normal campsite set up, whereby a central group tarp would be located with four tents placed in close proximity around the group area. Participants would generally share one tent between two or three students.

Many of the boys observed and interviewed voiced wanting to be more tolerant of one another. This is demonstrated by Dale's comment who states, *"I need to work on being more tolerant when I'm leading and not say sarcastic comments to people who are asking me questions"* (Descriptive Diary: Day 5). Twelve out of the eighteen boys interviewed had similar insights, identifying that their lack of tolerance was an issue. For instance, Elliot found the program to be socially challenging as he was surrounded by the same group of people for three-weeks:

> *I probably learnt about my ability to work with others. Definitely, my tolerance level is a big one… Yeah, there is definitely a lot of tolerance involved there [dealing with others]. It's hard not to get angry at them. It's hard to stay positive when it's taking longer than you think it should (Group A: Interview 1).*

Figure 5.8. A normal campsite setup

Even though most participants interviewed felt that ‘City to Summit’ was more ‘mentally challenging’ than physically challenging, some students also found the social challenge of living with a small group for an extended period of time to be one of the most difficult parts of the program. As Oliver comments:

> *I wasn’t really worried about the physical side of it. I thought that it wasn’t going to be too much of an issue, and it wasn’t. Um, I was more concerned about like mentally being away with and being surrounded by people the entire time (Group C: Interview 1).*

All students in Group 9 agreed that one of the most challenging situations of ‘City to Summit’ was being around the same people; living together, sleeping together and eating together for three weeks (Observation Diary: Day 18). Living together in close environments whilst being exposed to various stressors often led to conflict amongst the group and between individual participants. Forming ‘cliques’ and talking behind other’s backs also appeared to be a common occurrence amongst all the groups interviewed. This was consistent with observations of Group 9. For instance, participants in Group 9 were observed making personal judgements about one other and doing so behind each other’s backs rather than during open discussions. The group started forming smaller ‘cliques’ of approximately 3 - 4 people that gathered together to talk about people in the other ‘cliques’ without them knowing. Figure *5.9* provides an instance of students forming ‘cliques’ and not talking with one another. The ‘cliques’ were complaining to one another about issues that were causing them to feel annoyed, frustrated and angry about certain people in the other ‘cliques’ (Observation

Diary: Day 10). An example of this was when Syed's 'clique' was saying, *"how annoying is it when they keep swearing and singing?",* and Jack's 'clique' was complaining about other people, especially Tan. *"I am getting so over Tan singing. His voice is so frustrating. Don't ya reckon? It's getting to the point where it's making me angry",* said Jack to three other students (Descriptive Diary: Day 10). It became apparent that the continuous actions and behaviours of specific group members was affecting some individuals more than others (Observation Diary: Day 5, 10, 15, 20).

This formation of cliques in Group 9 was causing obvious conflict within the group which was leading to further segregation and undermining of group trust. Some duty groups were not working well together to complete tasks when at camp. There was a general 'feel of negativity' amongst the group and when the entire team was surrounded by one another at camp. No one was talking or communicating as they had been (Observation Diary: Day 10). It appeared that participants needed to vent to others about their feelings, but no one wanted to create open conflict amongst the whole group (Observation Diary: Day 10).

Figure 5.9. An example of students not talking with one another.

Jack, one of the students in Group 9, was concerned that the group conflict was causing big problems and felt that the problems would get bigger if they were not dealt with. Therefore, during the nightly debrief and he said to his group, *"come on guys, let's bring everything out in the open now. I know people are saying things behind other people's backs and I don't like it, so yeah"* (Descriptive Diary: Day 10). After Jack opened up this conversation to the group, everyone had a chance to comment on what was bothering them in an open and safe

Similarly, all four interview groups commented about difficulties with group tasks such as cooking dinner, cleaning, sleeping together in confined spaces in the tents and setting up a group tarp each night. As Figure *5.10* demonstrates, group tasks, such as cooking, required the boys to work together, trust one

another, communicate and rely on each other's skills to achieve the task at hand. Often, these group tasks appeared to cause conflict and social challenges amongst the groups:

> *Tristan: I got annoyed with people that didn't really help out. It would kind of grind my gears a bit. Uh, it's when you're kind of washing up and stuff. And kids just go off and don't really do much (Group B: Interview 1).*

Figure 5.10. An example of a duty group preparing food.

Another example of a socially challenging situation was when Group 9 experienced a one and a half hour conflict situation during the process of setting up a group tarp on night seven. Each night during 'City to Summit', all 17 groups were required to set up a group shelter at their campsites to prepare for inclement weather and to practice the skill. On nights one to six, the staff and boys with prior experience in Group 9 helped to teach and guide the other boys with less

experience on how to set up a tarp, learn knots and the skills required to achieve setting up a shelter. This was in an aim to practice their skills as they would be required to set up their own shelter during the 24-hour solo experience. On night seven, the group leader set the challenge for the boys with less experience to set up the group tarp without any assistance from the staff, or the boys who had prior experience and were competent in tying knots and putting up tarps. The group challenge was to get the group tarp set up before nightfall.

Figure *5.11* demonstrates how the boys were struggling to put the tarp up in the wind. The boys in Group 9 were struggling with the task. Individuals were yelling, blaming, procrastinating, standing around and talking to each other in an inappropriate manner (Observation Diary: Day 7).

During the conflict, the boys became very frustrated with one another, struggling to work together as a team, communicate respectfully or trust one another with jobs. All the boys appeared to very tired and hungry after a long day of whitewater rafting. However, while the boys were not as efficient at setting up the tarp as they were on nights one to six and they were not able to get the tarp up before nightfall, they still managed to set up a group shelter without assistance from the experienced people.

Figure 5.11. Day 7: Group 9 struggling to step up their group tarp in the wind.

This example highlights how the boy's responses to challenges changed throughout the program. Even though the boys may have been presented with the same difficult task each day, such as putting up the group tarp, their responses to the challenges may have been different each time. This could be caused by other contributing factors such the level of tiredness, team members feeling other stressors, adverse weather conditions, social pressures, hunger, level of daylight or be influenced by the people that were involved, which can alter a situation dramatically. It also demonstrates how the boys were able to learn new skills during ‘City to Summit' and applying their learnings each day. Having opportunities to practice and apply these skills each day appeared to make it easier for the boys to manage the difficulty as the time went on. This didn't alter the

level of difficulty of the task but rather increased the boys' ability to manage the difficulty.

Theme Summary

The challenge theme comprised of three identifiable types of challenges; physical, emotional and social challenges. The boys responded differently to the different types of challenges presented during the program. The challenges were dynamic with these different types of challenges overlapping and interacting. For instance, the bike riding was identified as a physical challenge; however, it also proved to be a catalyst for increasing social and emotional challenges for some participants.

Overall, the eighteen participants interviewed felt that 'City to Summit' was more mentally challenging than physically challenging. The main contributing factor leading to social challenges was the various difficulties that were provided by living with a small group, in a novel environment for an extended period of time. Providing opportunities to practice skills and apply their learnings throughout the program, appeared to increase the boys' ability to manage program challenges. For example, each day the boys were required to set up a group shelter. At the start of the program, the boys found this task challenging. However, throughout the program, the boys learnt and applied the skills require to execute this task. The level of difficulty of the task did not change. However, the boys' ability to manage the task increased due to their increased levels of competence, thus altering the perceived level of difficulty.

Theme 2: Response to Challenge

As previously identified in the literature review, participants' responses to stress and challenges can be physiological, emotional, cognitive, behavioural and/or physical (Bradley, 1990; Csikszentmihalyi, 1996; Lee et al., 2013). There was a wide variety of coping strategies that were observed and identified by participants that were applied in response to the challenges and stressful situations presented during 'City to Summit' program.

The response to challenge theme has been classified into two methods of coping; emotion-focused and problem-focused strategies. This is consistent with the literature on coping, as Lazarus and Folkman (1984) suggests, coping skills should be identified as emotion-focused or problem-focused coping skills, rather than being seen as adaptive or maladaptive, or seen as inherently good or bad. Problem-focused coping aims to deal with stressors or difficulties in practical ways, including strategies such as planning how to manage the situation or overcome the stress through problem-solving. Whilst emotion-focused coping involves an individual aiming to reduce the effect of the negative emotional response to a difficulty, such as the emotional responses from fear, anxiety, embarrassment, excitement or frustration.

Problem-focused coping strategies were identified when participants accepted the challenge and took action to tackle the problem itself. Whereas, emotion-focused coping typically occurred when participants made a change in relation to the situation. Table 5.5 outlines the most common problem-focused

and emotion-focused coping strategies that were identified and applied by the participants during ‘City to Summit’.

Table 5.5

Common problem-focused and emotion-focused coping skills applied

Problem-focused Coping	Emotion-focused Coping
1. Putting Things into Perspective	1. Distraction
2. Removing Oneself from the Stressor	2. Avoidance
3. Ability to Accept Social Support	
4. Addressing the Issue	
5. Chunking	
6. Coming to Terms with Difficulties	
7. Cognitive Reframing and Applying Positive Thinking	

Problem-Focused Coping Strategies

The sections below describe the seven problem-focused coping strategies identified by the boys. Each section is explained in detail and supported by examples of the participants’ comments and the researcher’s observations.

Putting things into perspective.

The most common problem-focused coping strategy identified amongst the participants was ‘putting things into perspective’. Many students used the term ‘putting things into perspective’ as a way to identify the coping strategy they applied to help them manage challenging situations presented to them during the

program. Although there was a range of approaches of ‘putting things into perspective’, Table 5.6 describes the three approaches participants used as problem-focused coping strategies:

Table 5.6

Description of the three approaches to ‘put things into perspective'

‘Putting things into perspective’	Explanation
1. Compares past experiences	The participant compares and relates their current situation with their past experiences.
2. Compares level of challenge	Evaluates and compares their current level of difficulties with other levels of difficulty they have experienced in the past.
3. Assistance from others to compare the level of challenge	Participants look to others to assist and guide them in making a comparison with the level of other various challenging situations.

These three approaches of ‘putting things into perspective’ also highlighted two common factors;

1. using other situations as a point of comparison and,
2. using the feeling or the memory of the comparison as a motivator to help them manage in their current challenging situation.

This coping strategy appeared to provide a general framework to assist the boys in controlling their emotional responses to a situation, by providing a logical and rational comparison to their current situation with past experiences. At times

the boys were able to ‘put things into perspective' themselves, and at other times they required facilitation from peers or the leaders to identify the point of comparison. It did not seem to matter if the students perceived their past experience to be positive or negative to be useful as a comparison. Even if the student felt they were unsuccessful in their past difficult experiences or they had feelings of disappointment, they were still able to use the comparison of the difficult situation as a motivator. Table 5.7 provides an overview of the three approaches of ‘putting things into perspective’ and provides examples from the participants’ comments.

Table 5.7

Various approaches and participant comments of 'putting things into perspective'

Overview and Description of the Approach	Examples of Participant's Comments
Compares past experiences:	
Jack compares past experiences to help him push through the barriers of feeling physical pain during challenging situations	*Jake: Like, I'd push through to the point where it would hurt... I was just kind of thinking about past decisions, I had made and that kind of helped me get through like the long hikes and in pain and stuff (Group C: Interview 1).*
Jack compares the level of challenge with another level of challenge he felt he had successfully achieved in the past	*Jack: this is way harder and way wetter than it was on our other outdoor ed camp, you know, the one that everyone was saying was their worst outdoor experience. And this isn't even that bad (Descriptive Dairy: Day 5).*
Compares level of challenge:	
Matthew compares the creature comforts of life at home, to the challenges of life on program	*Matthew: Just putting everything into perspective, sort of learning that we might be a bit too comfortable in our lifestyle now and that um, yeah, we should just take everything um, respect everything and yeah (Group A: Interview 1).*
Greg compares the disappointment of failing a challenging situation and uses it motivate him to do better next time	*Greg: You just sort of get over the disappointment [of failing] and sort of, use it to motivate you. Which I think is a skill you, a skill you have to learn and to do that that you have to keep going and just get through the, the tough times (Group B: Interview 2).*
Assistance from others to compare the level of challenge:	
Group Leader assisted others to point out a comparison of the level of challenge and apply it as a motivator	*Cody: I remember in our group, we all sat down halfway through and our leader said this is the hump. We just got past, we just got past the first half [of 'City to Summit'] so you can easily do the second half. And we were just like… we are halfway through the trip, just do the rest and you'll be sweet (Group D: Interview 2).*
Group members assisted others to point out a comparison of the level of challenge and apply it as a motivator	*Tan: Just think Cooper, as soon as we get to the river you won't have to hike with a pack on for like 6 days (Descriptive Dairy: Day 5).*

Removing oneself from the stressor.

Students demonstrated that this strategy involved the boys being able to identify what was triggering their stress and take positive actions to remove themselves from what was causing their emotional response. On many occasions, the researcher observed most of the students in Group 9 managing emotional and social challenges through walking away from the stressful environment, allowing themselves time to calm down, then come back to the situation and deal with things in a rational manner when the felt they were better equipped to manage their emotional responses (Observation Diary: Day 20).

For instance, in Lachlan's comment below, he describes how he was able to manage his response to the social challenges of living in close proximity with his peers by removing himself from the conflict or the challenging situation that was causing the issue:

> *Well for me, if I felt like someone was getting on my nerves, I'd just walk away and like at one stage… I was getting frustrated because the people in my tent didn't seem to care, so I just sort of walked away and um took, took a 'breather'. And then came back and I just felt a lot better and just had a little bit of time to myself. And then after that, I was just back to normal, like all was chill (Group C: Interview 1).*

Lachlan uses the term taking a 'breather' to demonstrate taking a small break or respite from the stress when his tent partners were not supportive of his

difficulty. In many other cases, the researcher observed boys 'literally breathing' and taking in deep breaths to help them to calm down after they had removed themselves from the stressor (Observation Diary: Day 20).

In another example, Isaac reports how he was able to manage social challenges by removing himself from the stressor. In this case, the stressor was people in his group. Instead of having to remove people in his group from the current environment or situation, he took the practical approach and removed himself from the situation. He was able to understand that the people in his group were triggering his frustration and the best way for him to manage it at the time was to manage himself and not others:

> *Just being around everyone for like 21 days can be frustrating, so normally I just remove myself and get some alone time. I'd walk at the back of the group and just get away from whatever is frustrating me at the time (Descriptive Diary: Day 18).*

Addressing the issue.

To assist in managing social challenges, that were identified as one of the major difficulties experienced during 'City to Summit', the boys pinpointed that a common approach to deal with these difficulties was to address the issue with the parties involved. In the following comment, James provides an example of how the social challenges of sharing a tent with two other group members for an extended period of time caused conflict amongst the three of them. His example provides evidence of how some students tried to cope with conflict by bringing

issues to light and discussing their related frustrations, however, the comment also suggests that this approach did not work for everyone. The behaviour of one of the students in this account indicates that he wanted to avoid dealing with the conflict and used denial to create a sense that there were not any issues that needed to be dealt with:

> *Uh, going to go back to the tent partner problem… When we had issues, my tent partner would express his points of views, and I'd express mine. And then we like got into this one argument and my buddy and I tried to explain the situation to him. At this point, he just went into denial and just cracked it. He just pretended like nothing had happened (Group B: Interview 1).*

All groups commented that 'addressing this issue' was a common response when participants were feeling strong emotional responses to stressors. 'Addressing the issue' may also be seen as a form of venting, where participants addressed issues by freely discussing their feelings with an individual or their entire group to help them manage their emotional responses to a stressor (Observation Diary: Day 4, 7, 10, 15, 19).

Occasionally the boys were able to recognise that for change to occur, some situations required action and for the issues to be addressed amongst the group. For example:

> *Frank: We did have a bit of conflict, but we got over it quickly… We all just sat down one night, and we just talked about everyone*

and what they had to fix. Everyone just went around [the circle] and basically just spoke up.

Jason: The leaders weren't involved, and we just went around, and everyone said explicitly, what they felt wasn't working, what they felt needed to change for us to be more effective… And so, people had sort of things directed at them that people weren't liking what they were doing. And no one really took offence to it. Everyone was just taking it as advice, listening and taking it in…And there was a drastic change after that (Group D: Interview 1).

During a nightly debrief, the researcher observed changes in group dynamics between the Group 9 boys (Observation Diary: Day 10). The group was experiencing a stage of group development where participants were becoming very frustrated with one another's actions and behaviours. Yet the boys seemed to realise that the problems needed to be addressed as they understood they were required to spend another 11 days together. The conversation below outlines a situation of how particular students aimed to address the issue. This conversation was initiated and facilitated by the students, without any guidance from the group leaders:

Tan: I just wanna know if I annoy anyone. Please tell me so I know and I have the chance to change it…

Jack: Yeah stop singing 'morale booster'… it's so annoying. And Joshua, can you please stop singing that annoying 'baby song'?

Joshua: I'm sorry for singing and being annoying… Also, I was annoyed at everyone too. When you were killing spiders and ants. Can you please stop that? Or if you are going to do it, please don't do it around me. I was brought up to believe that every living thing is equal, so please don't (Descriptive Diary Day 10).

This snippet of conversation demonstrates how the group was able to open up to one another and tell each other how they really felt. The researcher observed the students not attributing blame but showing a willingness to accept everyone's comments, even if they didn't agree. The next day, the group actively responded to everyone's wishes. It became obvious that this conversation had a positive effect on the dynamics of the group. The boys seemed to have developed a deeper understanding of each other through the discussion and were experiencing less conflicting situations (Observation Diary: Day 10, 11).

It is important to note that not all conflicting situations that were addressed resulted in positive outcomes. As Lachlan's recounts, his group tried to address a group conflict, but it seemed to have negative repercussions for a particular individual as he did not respond well to the group's feedback:

Lachlan: There's just this one person who was just negative, didn't want to play and sort of wrecked it for everyone else… Like everyone said at the end, he's so annoying.

Researcher: How did your group cope with that then?

Lachlan: We voiced our concerns and opinions. And he didn't take it well. No one wanted to sort of surround themselves with such a negative person. (Group C: Interview 1).

Ability to accept social support.

There appeared to be two types of social support which assisted participants to manage the various challenges presented during the program. The first type of social support was provided by their peers, and the second provided by adults in the group. The common factor of social support was whether or not students had the ability or willingness to accept the assistance that was being offered to them.

Groups and individuals were continually observed giving and receiving support from their peers to help manage the challenges that were presented during the program (Observation Diary: Day 4, 6, 8, 10, 15, 17, 20). Whether it was helping out with group tasks at the campsite, providing words of encouragement or physically assisting in challenges experienced during the adventurous activities (Observation Diary: Day 18). For instance, when Ian's feet and shoulders were hurting during the hiking section, two other boys in his group, who seemed to be managing better with the challenge, offered to carry his tent and some of the group food to lighten his load. Ian understood that he was struggling with this program challenge and was willing to accept the support from his peers (Observation Diary: Day 3).

Will provides an example of how he not only seeks but also accepts support from his best friends. He acknowledges that when he is experiencing

stressful situations throughout the program as well as in his home life he accepts assistance from others help him with difficulties:

> *Will: Sometimes I talk to people [when I'm under stress] … like my close friends (Group B: Interview 2).*

About halfway down the whitewater rafting section, students were invited to accept a challenge to jump off a nine-meter high rock into the river (see *Figure 5.12*). The boys in all four interview groups identified the jump rock challenge to be one of the most memorable and fun moments experienced on the entire trip. This was one of the program challenges that the boys were able to 'choose' to engage with, rather than being forced into the challenge because of circumstances.

Some students were scared of being up at height, while others were worried about jumping into the freezing cold, snowmelt water of the Mitta Mitta River (Observation Diary: Day 6). To overcome their fear of heights and engage with the jump rock challenge, the boys used a range of coping strategies, such as positive self-talk, goal setting and breaking the challenge down into smaller, more achievable obstacles ('chunking') (Observation Diary: Day 6). Nevertheless, most students who were expressing emotional responses to the challenge, such as fear and anxiety, responded best when they received support from their peers either via encouragement or pressure. For example, as described by Matthew, who had his arm around Elliot during the interview when he was retelling the story:

> *Matthew: My highlight moment would be as Elliot said jumping off the rocks cause that took me some courage to get up there, but I*

did it…I'm just scared of heights. Yeah, Elliot got me up there…

He got me up there through peer pressure and support.

Elliot: I was calling him a wuss [said in a laughing, good-natured manner] (Group A: Interview 1).

During the interview, the boys appeared to show comradery towards one another, and the teasing appeared to be light-hearted fun rather than bullying. It was this sort of cheerful teasing and support exhibited by Elliot that helped Matthew to confront his fear of heights and push himself further than he originally thought was possible.

Figure 5.12. The jump rock challenge, Mitta Mitta River.

Each day of the program, two boys in each group were designated to be the 'student leaders' for that day. These leadership roles rotated daily and meant that the boys would have several opportunities throughout the program to take on the role as the student leader and be able to practice and apply skills they had

learnt throughout the program. An example of this was when the student leaders showed an increase in empathy and understanding to their peers who were struggling with some program challenges. For instance, when people were struggling during the hiking sections, a common coping strategy applied by Group 9's student leaders was to move the fast walkers to the back of the group to provide support through encouragement, conversation or distractions techniques. This also ensured that the slower walkers could set the pace for the rest of the group and stopped the group from separating during the walk with the potential of causing conflict. These group management skills appeared to be learnt during the program and was initially facilitated by the adult group leader. These strategies applied by the student leaders provided a positive impact on the group as it supported their peers who were not managing as well as others with program challenges (Observation Diary: Day 3, 6, 7, 10, 15, 17, 20). However, the support offered by the student leaders was affected by the individual's 'ability to accept the support' or not.

Adult group leaders provided continual support to participants at both an individual level and group level (Observation Diary: Day 1, 3, 5, 7, 10, 14, 15, 18, 20). During adventurous activities and practical tasks presented to the groups, leaders provided safety guidelines and knowledge, taught skills and coached students through difficulties providing motivation and encouragement to succeed. This was demonstrated during the mountain biking section where group leaders and the mountain bike support staff were observed encouraging students who appeared to be struggling by riding next to them and commenting things like 'you

can do it', 'just keep it in a low gear and peddle slowly'. The leaders were also observed coaching students about the best way to tackle the uphill sections by using a variety of different gears on their bikes (Observation Diary: Day 10).

During group conflict scenarios, group leaders facilitated games and activities to help bring the groups together (Observation Diary: Day 15). At times when participants were struggling with emotional challenges, they would listen to the student's concerns and demonstrate care and support for the students' well-being (Observation Diary: Day 19). Reece recalls how he accepted the support from his group leaders. He acknowledges that the group leaders supported him during difficulties, helped to keep their group motivated, provided knowledge to support their experience and safety and that this impacted his enjoyment of the experience:

> *Reece: Um, I enjoyed it a lot ['City to Summit'], and the main reason for that was because I had two really good group leaders. They helped us out when we were struggling. Yeah, I was always getting advice and stuff of them. And yeah, they just kept us motivated. (Group B: Interview 1).*

An example of a situation where a student was not willing to accept support from his peers was when Isaac walked to the back of the group to start a conversation with Cooper while they were hiking. It was obvious that Cooper was struggling with the physical challenges of hiking, showing unenthusiastic body language, he looked physically tired and was demonstrating negative facial expressions. Isaac noticed this and tried to take his mind off the task. Isaac said,

"so Cooper what are your hobbies?". Cooper replied "NO, NO! Just go away". Isaac kept trying to ask other questions, only to hear the reply, "shut up Isaac, or I will hit you!" Isaac continued trying to make conversation with Cooper for about 5 minutes before he walked off and stopped trying to help (Descriptive Diary: Day 5). In this instance, Cooper did not want to accept the help of Isaac. It appeared that Isaac was trying to help by distracting Cooper through having a conversation, however, for Cooper, having a conversation may have added an extra burden on top of the physical, social and emotional challenges triggered by the hiking (Observation Diary: Day 5). This highlights the importance of how the support or assistance is presented to someone. For instance, if Isaac had have said *"hey Cooper, why don't we have a chat so that we can keep our minds off hiking and we will be there in no time?",* Cooper's response may have been different, and he may have accepted the support.

Chunking.

Throughout the entire program, the boys were observed breaking a challenge down into smaller, more achievable steps. This was a form of goal setting where the tasks were broken into achievable chunks (Observation Diary: Day 3, 5, 6, 8, 15, 18, 20). This process of 'chunking' appeared to stop the boys becoming overwhelmed by the task that they perceived at first to be unachievable or too daunting. For instance, the boys would say things like, *"let's just focus on making it to here first", "we can do this, we just have to take it day by day"* (Descriptive Diary: Day 3, 8).

Jason recalls how he used ‘chunking’ as a method to breakdown tasks into smaller time slots so that he perceived the task to be more manageable:

> *Like on ‘City to Summit’, I sort of taught myself this thing where like if I am getting up in the morning and I'm like uh, ‘I really don’t wanna get up this morning’. I'll just sort of break it down to half an hour slots, so I'll be like, ‘Oh, I'll get out of bed and then I'll, you know, have breakfast, and then I'll pack up the tent' (Group D: Interview 1).*

Another example of ‘chunking’ was observed during the jump rock challenge. For example, as depicted in Figure 5.18 the boys got out of their rafts at water level. If they accepted the challenge to jump off the rock into the water, they each had to scale up the face of the rock, until they reached a height that they wanted to jump off the rock into the water. Some of the boys scaled the rock and went straight to the top of the 9-meter-high outcrop. Whereas, other boys used ‘chunking’ as a method to break down the challenge. Most boys in Group 9 who were scared of heights used ‘chunking' as a method to overcome their fear of heights and jump off the rock (Observation Diary: Day 6). Feeling overwhelmed with the thought of climbing straight to the top of the cliff, the boys applying this method stopping at various flat points on the way to make the challenge appear more achievable. They set themselves small goals, such as reaching the 1-meter mark of the rock. Once they had achieved that, they would celebrate their achievements and reassess the situation. Next, they would set another smaller goal for themselves that felt achievable, such as reaching the 3-meter mark of the rock.

They kept applying this process until they either reached the top of the rock or they reached a point where they felt their limit was. The method of ‘chunking’ appeared to make the challenge feel more achievable and less overwhelming for the boys who were scared of heights (Observation Diary: Day 6).

Coming to terms with difficulties.

All four interview groups commented on the need for them to come to terms with difficulties as a means of problem-solving to help them to overcome program challenges. As ‘City to Summit' was a compulsory program for the Year 10 cohort, the level of choice to engage in certain challenges was limited. Most of the program challenges involved the boys having to come to terms with the fact that they found themselves confronted with a situation which was not by choice. For example, there were no taps or running water at most of the campsites. Therefore, when the boys needed to collect water, they would need to make their way to a water source. When the groups were rafting, the river was easily accessible. Whereas, when the groups were hiking or mountain biking, they would have to make their way to closest the water source, which could be up to 150 meters from their campsite. They would then need to collect the water from the water source (e.g., river, creek) and carry the water back to the campsite. A duty crew was normally assigned to collect the water for the group for that particular day.

The strategy of ‘coming to terms with difficulties' appeared to involve the boys applying three steps. The first step was to acknowledge and understand the situation they found themselves in. Secondly, to become aware of the various

obstacles or trigger to their emotional responses. Last, to plan and take actionable steps to manage the stressor or their emotional responses to the difficulties presented. The first step of acknowledgement and acceptance of the difficult situation seemed to strengthen the boys' ability to manage their initial emotional responses (Observation Diary: Day 20).

Oliver's comment below demonstrates his ability to first acknowledge the situation and accept the challenge. Second, he understood that he needed to complete the hike in order to make it to camp. Finally, his actions to help overcome the obstacle was is to apply his strategy to keep looking at his feet and get into a meditative rhythm:

> *When I was walking like I did this thing where I just didn't look up. I just looked at like my feet. And that really helped cause if you look up, you just say "ah". Another three kilometres of this crap. But if you just look at your feet, just keep going, and then your kind of like, it's like falling asleep. You kind of just like just get lost, get lost in the rhythm (Group C: Interview 1).*

Some program challenges required participants to immediately accept the situation and therefore, take appropriate actions to overcome obstacles, such as setting up tents or a group shelter in a storm. Participants understood that if they didn't come to terms with the situation and take actionable steps to certain obstacles, that they may experience negative consequences for their actions or lack of action. For instance, it was raining one morning with no shelter to have breakfast. Figure *5.13* demonstrates how the group decided to wrap the tarp

around them to provide shelter from the rain, so they could eat breakfast, keep warm and stay out of the wind. As a group, had they decided not to take the actionable steps to set up a shelter, the consequence of doing nothing would be getting wet and becoming extremely cold (Observation Diary: Day 17).

Figure 5.13. Day 17: Group 9's taco wrap shelter.

Cognitive reframing and applying positive thinking.

A common, everyday occurrence amongst the groups and individuals was reframing negative thoughts and attitudes, to a positive frame of mind (Observation Diary: Day 10, 15, 18, 21). This involved the boys identifying the problem, becoming aware of their thought processes and taking the actions required to maintain or change their thoughts to positive thinking. For instance, Tan commented that *"we should focus on keeping a positive frame of mind and keep up our group morale while we are hiking" (Descriptive Diary: Day 3).*

The positive thinking techniques appeared to assist in keeping negative emotions at bay when confronted with program challenges. It appeared that the participants' thoughts and attitudes directly affected their feelings, behaviours and actions (Observation Diary: Day 3, 4, 5, 7, 10, 15). For example, Oliver recalls how instead of thinking pessimistic thoughts about the challenges of hiking long distances, he reframed his thoughts to congratulate himself and celebrate how far he had already come:

> *Oliver: One thing that um helped me get through all the tough bits were not looking at challenges negatively… not thinking 'how much further do we have to go' but thinking like 'how far we'd come' (Group C: Interview 1).*

Using positive self-talk or keeping a positive mindset appeared to help reduce the stress that the program challenges provided (Observation Diary: Day 19). As the boys shared more experiences throughout the program, they started to become aware of how their negative attitudes could have a potentially negative impact on the group. Student leaders were observed addressing their group to maintain a positive mindset in order to help manage social challenges. For example, Lewis asked the group:

> *Can everyone please be aware of their bad moods and try not to bring everyone else down? Cause it can just go through the group. I know I'm like that sometimes. But just try to hide your bad mood cause everyone else is tired too (Descriptive Diary: Day 10).*

In the comment below, Lachlan's indicates how he felt it was very important for groups to maintain a positive mindset to assist with managing social group challenges:

> *I didn't mind my group because I had lots of guys that I knew really well, and that got you in a good mindset…And then there is just days, where like all it takes is one person just to not be in the right mindset and it just shuts you all down. And then after that everyone was just really down after that… No one wanted to surround themselves with negative people… You need to remind everyone that no one really likes a negative person. It's so important [to stay positive] (Group C: Interview 1).*

Emotion-Focused Coping Strategies

The following sections describe the two common emotion-focused coping strategies highlighted by the boys. The coping strategies are clarified and reinforced by the explanations of the participants and researcher observations.

Distraction.

The most common emotion-focused strategy used to help the boys cope with physical, mental and emotional challenges was 'distraction'. All four interview groups commented that they used distraction as a method to keep their minds busy and divert their thinking from the difficult aspects that the program presented. Interestingly, the boys used a range of different methods of distraction, such as humour, singing songs, playing games, working on riddles or talking to

one another to keep their minds busy. These various methods of distraction seemed to be focused on the coping with difficulties of the challenge, such as feeling tired, feeling pain, feeling bored, scared, or having feelings of anxiety, rather than using distraction as a means of avoidance. For example, Reece commented:

> *Yeah, the ascent [on the hikes] was really challenging. That was one of the hardest things… so we just, kind of made up games... that kept us going" (Group B: Interview 1).*

Brodie also explained how he used self-distraction methods, such as singing to help him cope. He acknowledges that he tried his hardest to take his mind off the challenging tasks to help him manage the physical and emotional challenges he experienced during the mountain biking:

> *Brodie: Like Matthew said earlier; definitely, the hardest part for me was the bike riding on the second day. The first big hill, it was hard but I sorta just put myself in 1, 1 and swapped between 1, 1 and 1, 2 and I would set myself like a post or a tree in the distance and just make it to that and then make it to the next one. I just tried as hard as I could to get my mind off what I was doing. Cause like, you don't have to think that much about it if you're just peddling. You've just gotta do it, and I mean it took a long time, but when I got there, I was like that's not really that hard. I was sort of like singing just songs to myself and anything to keep, just in my head,*

anything to keep my mind off what I was doing (Group A: Interview 1).

Figure 5.14. Day 10: A student resting after the last uphill leg of the mountain biking section.

Oliver recounts to others another situation where singing, as well as positive thinking, was used as a method of distraction to help him cope with all the difficulties presented to him during the program:

Oliver: I kind of had a Bob Marley song going through my head.

Lachlan: "Everything, is gonna be all right" [singing]

Oliver: "It's gonna be all right" [singing]. I actually did, and it kind of got me through [the challenges].

Researcher: And did you apply that [singing and positive attitude] in your head?

> *Oliver: Yeah legit... That song was going through my head. It kind of just shows a bit of resilience, that song… (Group C: Interview 1).*

Humour was identified by all interview groups as a common method of distraction. Throughout the experience, groups were observed using humour as a way to manage stress and help one another get through difficulties (Observation Diary: Day 19). Jake provides an example of where he and a friend used laughter as a way to cope with the challenge of having a broken tent. He believed their actions demonstrated their ability to be resilient:

> *I was camping with a friend, Paul. And we were in our tent, and at that time it [the situation] was really crap. We were just like swearing and everything like "what, what do we do", and that kind of stuff. Our tent's like broken. Then we looked at each other and like we were distressed, but we were laughing, and we both said after this, we will be laughing and like it'll be like, it'll be a funny story afterwards. And like a half an hour to an hour later, we'd got back to the hut, packed everything up and we just bounced back, and we were just all happy again. We were just laughing at the situation. But earlier [in the program], we would've been like really angry, frustrated, and screaming and yeah. It's just like little things like that; I think that's resilience (Group C: Interview 2).*

As demonstrated in *Figure 5.15*, the boys in Group 9 mainly used humour as a way to keep the group morale high, to help maintain a positive attitude or 'feel' within the group, and to keep their minds off the current difficulty (Observation Diary: Day 19). For instance, Ahmed recalls how they used humour and laughter to help get their group through tough times during the program:

> *Our group is just amazing, even in the so-called 'bad times', we are still laughing, cracking jokes and using humour to get us through (Descriptive Diary: Day 19).*

Figure 5.15. Students joking around at camp after a long day of hiking.

Avoidance.

The boys identified active avoidance as a common emotion-focused strategy that was used in response to difficult situations. Avoidance was also observed by the researcher on many occasions (Observation Diary: Day 3, 5, 10,

16, 20). Active avoidance was particularly applicable to situations that may have resulted in group conflicts.

An example provided by Chris demonstrates how he and one of his tent partners responded to the social challenges of building new relationships and dealing with conflict. His comment below indicates that his tent partner would avoid conflicting issues by walking off or not talking about it, while Chris demonstrated the use of harsh words to vent his frustrations:

> *One of my tent partners was a guy I didn't really know before. He wasn't really speaking to anyone in the group and then a few times he like really wouldn't help out or he'd be rude about it. Not reacting to him is hard cause he sort of gets on my nerves and he tries to get a reaction [from me] but um… And one day, he like broke my walking stick which I've had for a few days. I wasn't happy with that but um…I didn't like physically do anything. I did abuse him a little bit with words but… (Group B: Interview 1).*

In another situation, Chris describes how he would avoid creating conflict between his peers by completing the tasks himself rather than confronting his peers about his frustrations:

> *Um, I found sometimes my group would sorta just avoid it [duty group tasks], like not all the time but a lot of the time I'd end up doing it by myself or like maybe packing the tent up by myself or putting it up by myself just cause no one could be bothered, and I*

didn't want to keep hassling them to help out (Group B: Interview 1).

A further example of avoiding conflict was when comments from Ian in Group 9 were obviously frustrating the group. Group 9 team members all seemed aware of the issues but did not show any willingness to take action to confront the situation. Figure *5.16* shows the group sitting around the campfire after a long and wet day hiking and, Ian said to the group, *"someone should put more wood on the fire"*, while he sat back and did nothing. Everyone looked at each other, but no one said a word. After a while, Ian repeated the same thing, *"someone should put more wood on the fire"*. After becoming frustrated, Dale replied, *"yeah, and that someone is you"*. Ian slouched his head down in between his legs and mumbled something under his breath, but no one took any action (Descriptive Diary: Day 4). This example exhibits how Group 9 avoided conflicting social situations instead of managing or addressing the group's feelings and actions. While some types of active avoidance proved to have a positive effect, this type of avoidance was later observed to cause negative repercussions and further social challenges later in the program. This may have been a result of not addressing initial group frustrations (Observation Diary: Day 10).

Figure 5.16. Group 9 sitting around the campfire.

Theme Summary

The response to challenge theme consisted of two approaches of coping; problem-focused and emotion-focused coping skills. Participants reported the application of seven common problem-focused coping strategies used to assist them to cope with program challenges; (1) 'putting things into perspective', (2) 'removing oneself from the stressor', (3) 'ability to accept social support', (4) 'addressing the issue', (5) 'chunking', (6) 'coming to terms with difficulties', and (7) 'cognitive reframing and applying positive thinking'. Only two emotion-focused coping strategies were identified and applied by the boys. These were labelled as; (1) distraction, and (2) avoidance.

The coping methods most often identified in the interviews were also the most common strategies observed by the researcher. These were the problem-focused coping strategy of 'putting things into perspective' and the emotional-

focused strategy of ‘distraction’. Both these approaches for coping entailed various methods. For example, the boys who applied the strategy of ‘putting things into perspective’, used three various types of comparisons; (a) comparing past experiences, (b) comparing the level of challenge, or (c) requiring assistance from others to help the boys compare the level of challenge. Whereas, emotion-focused coping skills, such as distraction, involved using numerous strategies, such as conversations, singing songs, playing games, humour or using conundrums.

Theme 3: Personal Development

The personal development theme encompasses the participants' common thoughts, learnings and perceptions about the various experiences they encountered during and after ‘City to Summit'. Specifically, this theme pinpoints and presents the four common areas that were found to impact the personal development, learning and growth that the participants identified. Each of these three key areas is broken down into sub-themes and are presented in further detail in the sections below. The first area presents the key sub-themes that influenced and impacted learning outcomes. The second area presents the self-identified internal developmental assets that were enhanced as a result of participation in the program. The third section, details evidence of unconscious learnings, and the final section of this personal development theme presents new insights and understandings from the follow-up interview data.

Impacts of Program Design.

Although the boys were all presented with the same challenges during the 'City to Summit' program, the individual perceptions of the experiences and the learning achieved differed. The researcher's observations highlighted that the boy's perceptions of the experiences and their ability to learn and retain knowledge may have been affected by numerous variables, such as the individuals;

- previous experience,
- psychological/emotional state,
- level of tiredness,
- personality,
- fitness levels, and
- personal skills and capabilities (Observation Diary: 2, 5, 10, 19).

An example of contrasting perspectives from the same challenge was provided by Joshua and Scott when Joshua said, *"that hill today was nearly as bad as the first day".* Whereas, Scott contradicted Joshua's statement and said, *"No, it wasn't. It was nowhere near as bad as the hill on the first day, that was a huge mountain"* (Descriptive Diary: Day 4).

Six months after the program, each of the eighteen participants reported that they felt the overall experience of 'City to Summit' was positive. These results were consistent with the boy's initial perceptions of their experience

immediately after the program. For example, Lachlan highlights how he and his teammates felt when they got back to school after the program:

> *I had a positive experience. I just remember everyone being really happy. Like, no one was in a bad mood after 'City to Summit'. Everyone was saying, "Oh, how was it?", "Oh, so good. How was yours?" And just everyone just had such a good time. Everyone was just so pumped up like, "Oh, yeah. 'City to Summit' was sick" (Group D: Interview 2).*

All the boys identified three key elements that influenced their positive learning experiences due to the program design;

1. feeling a sense of achievement,
2. feeling a sense of adventure, or
3. feeling a sense of privilege when they became aware of positive circumstances or things they were grateful for in their daily lives.

The following sections detail these three elements sub-themes in further detail.

Sense of achievement.

The design of the 'City to Summit' provided a framework to support the boys in gaining a sense of achievement through the completion of daily program challenges and the entirety of the program. During the Frontloading Phase at school (day 0), the boys were asked to identify potential goals they would like to achieve through completing a form with questions, such as "what are your goals for this program?" or "what do you want to learn about yourself?" They put their

responses to these questions in an envelopment; the envelopes were sealed and kept at school with the intention of the boys opening their envelope at the end of the program to see if they had achieved these goals. However, not all groups completed this goal-setting task, and not all groups were given their envelopes to open and reflect upon on the during the Integration Phase at school (day 22).

The goal setting questions and structure tended to guide boys to set goals of a very general nature. For example:

> *Matthew: I set self myself a goal to reach Kosciuszko safely and with as little dramas as possible (Group A: Interview 1).*

> *Reece: My goal was to complete the program and then go home and appreciate life a lot more (Group B: Interview 1).*

There were two common types of goals between the boys who completed the form. Firstly, some boys just wanted to survive and get through the experience. Secondly, all of the boys commented about wanting to develop better friendships. These goals were very broad, demonstrating that the boys were struggling to set specific goals that related to personal growth and understanding:

> *Robert: I can't really remember what mine was, but I think, maybe like trying to get through it without too much of a problem missing anything at home (Group B: Interview 1).*

Even though the boys generally struggled to articulate or remember their goals, all interviewees commented on feeling empowered and feeling a sense of achievement at some point throughout the program. The program challenges

provided opportunities for the boys to engage with challenges, resulting in feeling a sense of achievement. As Brodie's comments indicate, these situations often became opportunities for learning and provided insights into how persisting with difficulties and 'hard feelings can lead to feelings of elation and achievement:

> *I think it's definitely more rewarding when you finish it, like each [day]; but the whole thing ['City to Summit'] as well. Each different part which had the hard parts and hard feelings, come with like the best feelings after. Sorta no pain, no gain sort of thing… When we got to the end of the day [bike riding], it was probably like the best feeling I had all camp. I was like "you've done it', you've got through the day". Getting to the end for the ride and it was pissing down rain and everything, it was the hardest thing we did all camp, but I didn't really mind, cause you to know, I finished it (Group A: Interview 1).*

All eighteen boys commented on how good it felt to reach the top of Australia after the challenge of 20 days of hiking, mountain biking or whitewater rafting. Cody's comment emphasises that the primary goal for the entire program was for the boys to complete their journey and reach the highest point of Australia. His comment summarises the boy's feelings of achievement once they had persisted with the challenges and made it to their destination:

> *Cody: The climb at the top of Kosciuszko was so awesome. Cause, you know, it doesn't seem like much, but the whole trips about*

Kosciuszko at the end of the day… When we're standing on top of the summit, and you're looking over the view, you're like, 'This is awesome. It was worth it', you know you've done it (Group D: Interview 1).

The conversation below between the boys in interview Group B also highlights how the beauty of the mountains, completing the challenge and being in a novel setting also contributed to their feelings of accomplishment:

Reece: My most memorable moment was definitely sunrise [On Mt Kosciuszko]. That was amazing.

Chris: Yep. My most memorable moment was just after we hiked up into the Thredbo mountains and the last four days up there was probably the best part. Cause, like, it was awesome just to be up at that altitude, waking up to awesome sunrises and scenery around us the whole time was pretty cool (Group B: Interview 1).

Figure 5.17. Sunrise on the top of Mt Kosciuszko.

Sense of adventure.

The majority of boys from the four interview groups and the observation group connected feelings of adventure with experiencing either a highlight or a memorable moment. The outdoor education program created these opportunities through exposure to risk and difficulties that required the boys having to draw on all their resources to overcome the challenging, adventurous activity. For instance, Robert stated:

> *I really enjoyed the rafting. I didn't think I would as much but I just, I loved the thrills and stuff, going down, going down the rapids and stuff is pretty cool (Group B: Interview 1).*

Feeling a sense of adventure appeared to be heightened by also having the option to choose to engage with these adventurous opportunities or not. The most

common example of this was when the boys were able to choose to engage with the ‘jump rock challenge’. This involved the boys ‘opting in or out’ of jumping off a 9m high rocky outcrop on the banks of the river and landing in the water when they were rafting. Even though for some students, this was one of the most challenging situations on camp, most of the students felt that jumping off the rock was a fun type of challenging experience. It was a challenge that they were able to choose to participant in. For example, Cooper didn’t think he could jump off the rock, but having the opportunity to choose to engage in the challenge, made him feel not only a sense of adventure but also a sense of achievement:

> *Cooper: My highlight was definitely the jump rock because I never thought I could do it, but when I did it, it just felt so good (Descriptive Diary: Day 9).*

In addition, Zac points out how he was craving the feeling of adventure and having an adrenaline rush, and how this experience became his most memorable moment on the program:

> *Personally, my most memorable moment was the second day of rafting. We were surrounded by good people and awesome rapids, and then we got to this point where we were able to jump off this rock. It was like nine meters tall or something. And jumping into the water just gave me that adrenaline rush that I needed (Group C: Interview 1).*

As Figure 5.18 shows, the participants from group 9 were feeling very proud of themselves for overcoming their fears, which resulted in feeling a sense of adventure and achievement. The evidence provided in Figure 5.18 is also supported by Ian who said, *"I remember how good it felt jumping off the rock. The wind in your face for about 3 seconds and then the water slaps your face"* (Descriptive Diary: Day 15).

Figure 5.18. Group 9 after the jump rock challenge.

The conversation below from Interview Group C indicates how choosing to engage in a challenge that was something new, adventurous, and perceived to be risky and difficult, caused the boys to have fun, feel satisfied, feel a sense of adventure and accomplishment.

> *Lachlan: I had a couple of most memorable moments. One was when we jumped off that rock cause it was really high. And I got a bit scared as I was standing on top of it. When I jumped off it was a really good feeling.*

Oliver: Yeah, that was really good fun [jumping off the rock]. I enjoyed that and also seeing some of my mates who were pretty scared about it. You know, being able to show themselves that they can do it. I thought that was good. Um, including myself. I think it was pretty scary. I'm not gonna lie (Group C: Interview 1).

Awareness and appreciation of one's circumstances, privileges and relationships.

During the interviews, the boys used the terms grateful, gratitude and appreciation interchangeably to describe their feelings when they had become aware and appreciative of the comforts and conveniences of modern urban life at home. All boys frequently commented on how being removed from their regular living environment heightened their awareness of their normal life circumstances and privileges of what they have access to in their daily lives. Every one of the boys interviewed and observed frequently discussed how being removed from urban settings and not having access to 'material things', such as hot water, transport, houses and comfortable beds, made them feel a greater sense of appreciation or gratitude for their life circumstances and privileges (Observation Diary: 2, 5, 7, 10, 12, 19):

Chris: You appreciate the things that are already given to you. Like hygiene for me is a big one… Like a shower, a toilet and stuff.

Greg: Yeah, material stuff like a house, bed and all of that. I just really appreciated transport… (Group B: Interview 1).

Similarly, all eighteen boys commented on how they normally take things for granted when they are back at home, not realising how privileged they are until access to these privileges were taken away from during the length of the program. For example, Jake's comment below highlights how the program has caused him to not take things for granted like he used to:

> *Jake: You treasure the little things like running water, hot water, little chocolate bars and stuff…. And I just noticed that I'm not taking things for granted as much as I would have before. Like, if I use my phone, I don't abuse the privilege of having it… (Group C: Interview 1).*

It was not only material items that the boys appreciated, but the boys also commented on becoming aware of their privileged family circumstances and how much people, such as their parents, do for them in their home lives. As Ian points out, through the actions of needing to be self-reliant and do tasks for himself during the program, he became more aware of his privileged circumstances in his home life:

> *I have realised just how much everything gets done for me at home. My parents do everything for me. And now I really appreciate it. They cook, they clean, they do the dishes. Here, I have to rely on myself to do everything like cook, clean and actually get to different places through rafting and cycling and stuff like that (Descriptive Diary: Day 9).*

Appreciation of family.

Immediately after the program all eighteen boys interviewed commented on the fact that they felt their relationships with their families had changed and became stronger when they returned home from the program. As mentioned previously, one of the most significant program challenges for the boys was being away from home for an extended period of time. However, the challenge of being removed from their daily lives caused the boys to miss their families, resulting in a heightened awareness and greater understanding of the importance of home life and how much it means to them. It was clear that being away from family triggered the boys to question the value of family relationships, what it means to them and question their role within the family. Amongst all boys, there was a general 'feel of appreciation' for what their family members do to help and support them in their normal lives. These feelings combined with the absence of family members during the program, initiated the boys to alter their previous perception of their family relationships. For example:

> *Matthew: I now appreciate more what my parents do for me. And like whether it be cooking breakfast in the morning or something. You just really appreciate what your family do for you… (Group A: Interview 1).*

> *Chris: Missing my family was a really big part [of learning] for me. Like, I missed my family, but I probably missed my smallest sister the most. And like, I usually like to call everyone [family] every one or two weeks and, see how she is going... Yeah, I just*

missed her a fair bit, so when I saw her again, it was pretty good cause I've been away from her for so long (Group B: Interview 1).

Tristan: When I got home, I realised, I was just like nonstop talking with my Mum and Dad. Like, when I got home, I just told Mum about every single part of the camp. I think I just really missed her (Group C: Interview 1).

Jake: I changed like my personal values as soon as I got home. Like, I haven't fought with my Mum at all or my brother. I've just been more respectful towards them cause I just treasure them so much more (Group C: Interview 1).

The comments above also highlight how the boys were able to identify specific significant others in their family group, such as Chris's little sister or Tristan's Mum, that impacted on them more than others. It appears that being away from their families with no means of contact increased the boy's awareness of the importance of these relationships.

As part of the program design and curriculum, there was a pre-planned activity where boys would receive a letter from their families during the program. This may have impacted the boy's beliefs and feelings of appreciation for their families, as it appeared that receiving the letters had a significant impact on the boy's perceptions of their family members and their appreciation of their relationships with their families. For instance, Chris comments that:

> *[Reading the letters] made you think that they care about you more than you know…what they said about you was like a big realisation. Like, how they actually felt about you. It was pretty good to read the good things they said about you and stuff so… (Group B: Interview 2).*

Perceptions of technology.

Comments from the boys in all four interview groups indicate that technology is a distraction for them in their daily lives. The data reveals two aspects about the boys' perceptions of technology post-participation in the outdoor education program:

1. Without technology, the boys were able to focus on the task at hand during the program.
2. The boys appeared not to miss having technology throughout the program.

Table 5.8 demonstrates the commonalities between the boy's comments across all four interview groups, and how being in the outdoor setting, without technology influenced their perceptions and feelings about home life.

Table 5.8

Examples of Group comments about the effects of nature on their perspectives about technology

Interview Group	Sample of Participant's Comments Post-Program
Group A: Interview 1	*Brodie: Ah, that's another thing that camp helps you with because there is not technology or anything to distract you with when you're in nature. You sort of just focus on what you are doing, but at home, you've just got so much stuff you can start using.*
Group B: Interview 1	*Reece: I was kind of worried about not having a phone, technology and stuff, but on camp, I didn't care at all. I got back, saw my family. I didn't really acknowledge it [technology] at all…That was surprising for me as I normally have it [my phone] glued to my hand. Yeah, I don't really miss technology much…Which Mum likes cause she used to think I was an addict.*
Group C: Interview 1	*Jake: I think a lot of boys at home just use technology and rely on it all the time. So, getting away from that and being in the bush was a good thing. It's good seeing what it's like without it [technology].* *Tristan: And also, it gives everyone a good idea of what it's like outside the city and what it's like outside without technology. Cause um these days, there's so much technology involved in your life that it's hard to get away from. So, going to New South Wales and the high plains in Northern Victoria was really good to get away from that whole side of things.*
Group D: Interview 1	*Mark: I like to push myself more now. Um, before the camp I was easily distracted by things… I would get distracted by the uh computer, and I would put my book away and play the computer. So, after being on camp, in nature, um I learned to um stick to something more…*

Developing and Demonstrating Overall Resilience

After completion of the program, the boys in all four interview groups were asked about what the meaning of resilience meant to them. They responded with a range of different answers, such as comprehending resilience as mental toughness, or the ability to think positively (See Table 5.9). When the boys were asked if they felt they had become more resilient as a result of participating in 'City to Summit', all boys observed and interviewed commented that they felt their resilience capacity had increased immediately after participation in the program (Observation Diary: Day 19).

In order for the participants to be able to apply resilience attributes and coping skills, they needed exposure to difficulties, challenge or adversity. As Brodie suggests, the reason the boys felt the program developed their overall resilience was because the boys were exposed to difficult challenges which extended them beyond their comfort zones, whilst still feeling like they could achieve or be successful in overcoming the challenge:

> *I reckon it [the program] does build resilience, but I reckon it's only because of the one or two hardest things you do on camp. Like, again with the cycling, you're trying your hardest, it's getting you out of your comfort zones and then you know you can achieve it (Group A: Interview 1).*

In addition, Oliver's comment below indicates how the boys felt the program not only developed their overall resilience but also influenced the enhancement of other, attributes such as determination and persistence:

> *I think it's not just overall resilience. I think there's a lot of other attributes that you bring back [home] like determination and persistence. So, a lot of those things that you've learned from the camp you bring back so easily so you'll start to persist in certain areas and start to be like more determined about just life in general, to reach your goals and stuff (Group C: Interview 1).*

Lachlan also acknowledges that the program not only provided opportunities for him to demonstrate his resilience capacity, but it also helped to increase his confidence levels to push himself more mentally and physically:

> *I was really struggling, like a lot, but I just thought that if I keep on, keeping on, you know, like moving my feet, eventually I'd get to the end so, I think that's definitely resilience for me. The one big thing I've taken from the camp is knowing I have more confidence in myself to like push myself (Group C: Interview 1).*

Table 5.9

Participants definitions of resilience

Group A: Interview 1	Group B: Interview 1	Group C: Interview 1	Group D: Interview 1
Resilience is…	Resilience is…	Resilience is…	Resilience is…
Brodie: From this camp, I now understand resilience to be how I can bounce back without hurting myself. *Elliot: Resilience was like when I'd push through to the point where I would physically hurt. I can't really explain it but pretty much what helped me through was thinking about past experiences, past decisions and knowing I had people around me that could help me through.*	*Reece: Self-reliance. Like relying on yourself more to do things.* *Greg: Bouncing back from adversity or something.* *Robert: To keep going when the going gets tough.* *Chris: Being able to rely on yourself basically.* *James: Being able to bounce back from tough situations and being able to look on the positive side of it.*	*Lachlan: Bouncing back from something that's not good. It's sort of like, it's not about how hard you can get hit, but how much you get up and keep moving forward. It's like being mentally strong, headstrong and like being able to persist with something that you find difficult. Knowing that if you keep pushing and keep going forward, eventually everything's gonna be all right.* *Oliver: Bouncing back from something that's not beneficial to you.*	*Jason: The capacity to endure.* *Frank: Just coping with a situation.* *Kevin: I can't remember. Isn't it like to make something out of a bad situation?* *Jason: Turning something apparently bad, sort of around to become something good. Isn't it?* *Mark: Thinking in a positive mind.*

The common areas of personal development that were identified by the participants are summarised in the Venn diagram (Figure *5.19*). The visual representation presents the self-identified internal and external assets that were developed as a result of participation in 'City to Summit'. As Figure *5.19* exhibits, Overall Resilience appeared to be demonstrated when the boys internal and external assets overlapped. The analysis of Phase II and the first set of interview data identified four common internal assets to be either learnt or enhanced. These internal assets are presented in detail in the following sections. The external assets listed are discussed in the next theme that explores the development of relationships.

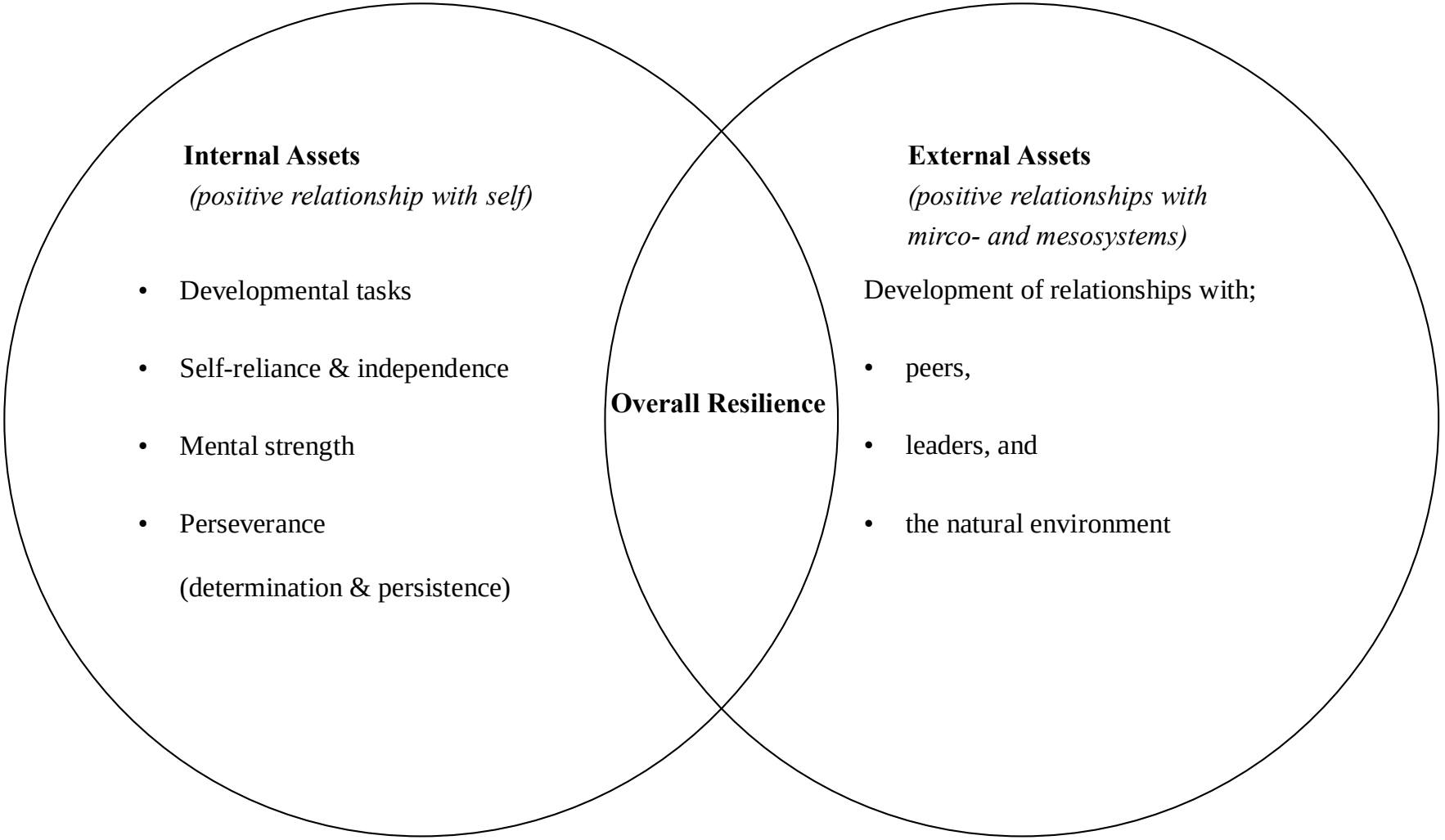


Figure 5.19. Self-identified developmental assets enhanced as a result of participation in 'City to Summit'.

Internal Developmental Assets

This section explores the boys' understandings of their development of internal assets, also known as developing a positive relationship with oneself (Benard, 1995, 2004; Wagnild, 2009). The sections provide examples and descriptions of the boys' application and understanding of the four sub-themes; developmental tasks, self-reliance and independence, mental strength and perseverance, in relation to the boys' initial perceptions of 'City to Summit' immediately after the program (see Figure *5.19*).

Developmental tasks.

As the literature identifies, developmental tasks are age-related standards of behaviour which affect an individual's human functioning (McCormick et al., 2011). These include tasks, such as self-sufficiency, learning to get along with others, leadership skills and acquiring a set of values to guide behaviour. The majority of boys across all four interview groups and all the boys in Group 9 consistently reported using five common developmental tasks which may have assisted their development of assets (Observation Diary: Day 2, 5, 9, 10, 13, 18, 20). These skills included the boys reporting:

1. Developing communication skills.
2. Increasing their ability to show empathy and understanding towards others when they were struggling. (e.g., "Even though this may be easy for me, I can see that this situation is difficult for…").

3. Increasing their levels of tolerance and understanding towards other's needs, values and opinions.
4. Learning how to work with others towards a common goal.
5. Learning skills of how to lead others without dominating.

For instance, Jason reports that *"we learnt effective ways of communicating with people"* (Group D: Interview 1). Lachlan also explains that he was able to practice developing his communication and interpersonal skills throughout the program:

> *My ability to communicate with people got better I thought… Like, it may not have seemed like that on the camp, but I think it's improved a lot. Just being able to like to read a situation, I think it's gotten a lot better for me so… (Group C: Interview 1).*

Twelve out of the eighteen boys were able to provide examples of how their tolerance of others increased during the program, such as Elliot who states:

> *I learnt a kind of tolerance. Appreciation for just the self and focus on other people's opinions and stuff… Yeah, it ['City to Summit'] like opens your eyes a little bit. Like understanding the dynamics of other people (Group A: Interview 1).*

Matthew provides another example of how he is able to manage his emotional responses by accepting the situation and demonstrating a level of tolerance towards his initial frustrations. His comment also indicates the use of problem-focused coping skills, such as 'removing oneself from the stressor':

I think I've done well. Um, whenever there's someone that's irritating me or something like that, I just, I just let it slide. I don't really dwell on it too much. Just being accepting. If it gets too annoying, well, I'll remove myself or do something more useful (Group A: Interview 1).

Immersion into challenging environments clearly put the boys out of their comfort zones. Brodie's comment indicates how the program could bring out the worst behaviours in people in his group, yet it was the people in his group showing these problematic behaviours that caused him to require increasing his levels of tolerance towards others:

I think…'City to Summit', can see bring out the worst in people...so I guess it has made me a bit more tolerant of people…Group A: Interview 1).

Self-reliance and independence.

Self-reliance and independence were the most commonly mentioned resilience attributes that the boys identified to be improved due to participation in 'City to Summit'. This meant that the boys were able to demonstrate an understanding of their personal capabilities and limitations, whilst also being able to independently undertake and manage challenges within their own limitations.

The outdoor education program and the natural environment provided opportunities for students to be away from their daily urban lives. All boys interviewed and observed mentioned that having the opportunity to practice being

self-reliant and independent which supported the development of these skills (Observation Diary: Day 5, 7, 10, 19). For example, Cody's comment below indicates a level of understanding that the program helped them to build their self-reliance by being away from family who would normally assist with daily tasks:

> *I kinda learnt to be more independent because my Mum kind of spoon feeds me a little bit [at home]… Cause we are all spoon fed everything in Melbourne… Like, phones and people cook our food and like teach us stuff. In the wild it's like, you have got to do all that yourself (Group D: Interview 1).*

Researcher observations and participants' comments demonstrate that the group leaders appeared to have provided supportive learning environments in which participants were able to learn from their mistakes (Observation Diary: 2, 3, 5, 12, 15). For example, Jason acknowledges how having the opportunities to practice skills throughout the program helped to support the boys developing their sense of independence:

> *Jason: There's a lot of the teachers letting us make mistakes and making us sort things out ourselves to sort of develop that independence and decision-making skills… (Group D: Interview 1).*

Cody also provides an example of how the leaders supported the students to become more independent by allowing them to learn through their direct experiences instead of telling them what to do:

> *Like, our camp leader. He let us just go off the right track [hiking]...But he didn't tell us. Which I reckon was good because then we had to learn, you know, we have to keep checking the map, keeping us more independent, you know (Group D: Interview 1).*

In addition to becoming more self-reliant, over two-thirds of the boys commented on increased other developmental tasks, such as cooking and cleaning. This demonstrates their ability to be more self-sufficient by taking actions requiring them to depend on themselves without the assistance of their parents or other adults. Brodie provides an example of how he felt as though the program forced him to develop these skills as there was no-one else there to do it for them:

> *Brodie: At home, I never really get asked to clean or cook that much. I've always thought that it wouldn't be fun at all and that it's a lot more difficult. But when you're actually like forced to do it. Obviously, it's a lot worse situation cause you're on camp, with a bucket of water, cooking with a stove and you're cooking like dehydrated vegetables and everything. But it was actually a lot easier than I thought it would be. And I thought I should probably try that at home and just try to help out a bit more (Group A: Interview 1).*

During a nightly debriefing, students in Group 9 were asked if there was anything they had learnt over the past 10 days that they thought they would be

able to apply back in their home lives. Syed's response shows his understandings of how the experience of 'City to Summit' helped to prepare the boys to be more self-reliant in their own lives:

> *The past 10 days have made me realise just how independent we can be at this stage in our lives. We have to rely on ourselves, and we can do it. The experience prepares us for going back home and being able to live by ourselves is we have to move out when we are eighteen. I think I will use my learnings back at the farm and at home (Descriptive Diary: Day 9).*

Not surprisingly, the solo day appeared to be the prescribed activity that influenced the boys' levels of self-reliance the most. All the boys interviewed and observed provided multiple examples of how the solo day was the specific program challenge that improved their levels of self-reliance and independence. As Greg points out, being independent was essential as the boys were required to live alone and survive for a 24-hour period:

> *I think that I was pretty independent on the solo day cause you're by yourself… It felt good that you could know that you could put up your shelter, you could live with yourself for 24 hours, and be self-sufficient in a way, so that was good (Group B: Interview 1).*

The boys were supported to cope with the solo challenges by gradually being exposed to more time alone each day. The leader facilitated daily reflection or solo sessions to gradually expose the boys to the stressor of being alone in a

wilderness setting, with the amount of time increasing each day. The boys were taught the skills required for them to be self-sufficient, such as cooking and setting up shelter. Figure *5.20* shows a student practising setting up a tarp by himself to prepare for the 24-hour solo experience.

Figure 5.20. A student practising setting up a shelter.

For the majority of the boys, this was their first time spending an extended amount of time alone, in a wilderness setting, with no one else around to assist them. As Matthew emphasises, at home the boys have their family and friends that they can rely on for support, whereas during the solo day the boys need to rely on themselves, causing them to problem solve, take action and responsibility for their own well-being:

> *On solo day, it most definitely was the time I showed the most independence cause you're by yourself, no one around to help. You're really reliant on yourself and your well-being during the*

> *solo. At home, you've got someone else to help you. Your family or something or your friends might help you, but here it's all by yourself (Group A: Interview 1).*

Brodie also recalls how he would normally rely on other team members to do things for him, and how being alone forced him to be persistent, self-reliant and apply skills himself:

> *My tarp kept falling down. I would put it up, and it would fall back down. Eventually, I got it to just at the right point to stand up. That was probably when I had to use my independence the most. Normally, it's sort of easy to just sit back when there is a big group and lots of people that are willing to do it. And in the end, they're the people that are better on solo day. They make the better tarps, but it's easier to sit back and just rely on everyone else to do stuff. When you're forced to do it by yourself, yeah, it's hard (Group A: Interview 1).*

Mental strength.

Mental strength refers to an individual's capacity to effectively manage their psychological resources in response to stressors and challenges presented, while performing at their best, despite their current difficult circumstances. As all eighteen of boys identified the program to be more mentally demanding than physically demanding, it is no surprise that the boys commented on developing their mental strength. For example, Cody states:

Sections of 'City to Summit' were more like mentally, a little bit physically but mostly mentally hard, you know, like especially solo time… (Group D: interview 2).

Mark also found that the program required him to push himself mentally, which is something he wouldn't usually do:

I really learnt to push myself more mentally. Like, frankly, I would normally stop something [that was hard], but while I was hiking, I just had to push myself to join the others and catch up with the others, so that's been good (Group D: Interview 1).

The boys experienced challenges requiring mental strength before the program actually started. For example, sixteen boys reported feeling apprehensive about attending 'City to Summit" prior to the program starting. This was a perceived level of challenge and difficulty that required the boys to apply mental strength to manage their emotional responses:

Zac: Obviously before it ['City to Summit'] you're a bit nervous and kind of tentative about going. But when your back [at school] and you look back, you just realise its kind of one of those once off experiences, lifetime experiences that you'll remember for the rest of your life (Group C: Interview 2).

Jake's response below also demonstrates the boys were able to apply mental strength to help them push through mental and physical pain barriers in order to achieve a desired outcome:

> *I also learned how resilient I can be and how far I can actually push myself… I thought that was amazing cause I've never done anything like that before and that challenged me at times… Now I know how hard I can push myself. To the point where I will cry. And even after the mountain biking, I felt sick, and I vomited a little. I'd never done that before, and so I know how hard I can push myself before my body gives up… I just can't really comprehend it at the moment (Group C: Interview 1).*

The program challenges provided numerous opportunities for the boys to test their strengths, weaknesses and limitations. Interestingly, over half of the boys commented on lacking the self-confidence in their ability to overcome program challenges. This is highlighted by Scott, when he said, *"camp has really shown me about my strengths and my weaknesses and my limitations. I didn't actually think I could do all of these things*" (Descriptive Diary: Day 19).

Determination.

As the literature confirms, determination can also be viewed as using persistence or perseverance (Wagnild, 2009, 2011). The boys in all four interview groups used these words interchangeably to describe their feelings when they felt they were extending their personal capabilities and found themselves out of their comfort zones. All boys observed an interviewed commented on developing their determination and their ability to persevere in the face of difficulties. The following conversation between Brodie and Jake provides an example of how

they felt that being exposed to the program challenges, whether it be physical, social or emotional, helped them to increase their levels of determination:

> *Oliver: I definably had more determination…*
>
> *Jake: I think I leant determination too. Like, I think in developing determination, it's the hills that were a major factor but I think it's also like the will to wanna get to the end… You're like so determined to get to the finish and like, I think, that was the main rewarding thing about Kozi, getting to the top, just like the feeling of relief, sort of. Like you pushed yourself… (Group C: Interview 1).*

Oliver also highlights how having a goal and the 'will', want or need to achieve that goal, also helps in developing and applying determination.

Similarly, Brodie and Elliot's conversation indicates how when they were placed out of their comfort zones and confronted with challenges; they were able to demonstrate and practice the use of their personal capabilities to help them succeed:

> *Brodie: I did use a bit of determination to do the hard bits, so I didn't give up… I put myself through a pretty hard time, but it was worth it…*
>
> *Elliot: Yeah, I think I learned self-discipline and determination. Like, especially determination when we were coming to the summit (Group A: Interview 1).*

The researcher also observed Group 9 demonstrating persistence, perseverance and determination throughout the entire program. Not surprisingly, these attributes were typically observed during days when students found the adventure activities particularly physically challenging, such as the mountain biking and hike up Mount Misery (Observation Diary: Day 1, 10, 13, 16).

Unconscious Learnings

The term ‘unconscious' was used frequently used by the boys throughout the interviews. When the boys found it difficult to articulate their feelings or put the program outcomes into words, they tended to identify that their learnings were at an unconscious level, highlighting a lack of awareness. For instance, Jason was able to recognise how the developmental task of ‘communication' could be applied in different contexts, but he was unable to understand how he could practically use it:

> *Um, we could use communication skills and that back at school… I couldn’t really say exactly what or how. It's more of a subconscious thing you develop of how you communicate with people effectively (Group D: Interview 1).*

Over two-thirds of the boys felt that their learnings were unconscious. An example of this is provided by Elliot who indicates how almost all the boys commented on finding it difficult to firstly understand what they had learnt on program, and then be able to maintain the learnings after the program:

> *I think that's the problem. You can't really mentally, make a conscious effort to maintain what you learned cause it's like you don't actually know what you learned; it probably affects you just unconsciously or something (Group A: Interview 1).*

Lachlan was one of the students who felt he had maintained his resilience six months later. However, he found it difficult to provide examples of how he has applied his resilience capacity to overcome difficulties, feeling that his learnings have been on the subconscious level:

> *I think the program made me more resilient. But I feel like my resilience is subconscious though. Like, I know it ['City to Summit'] made me resilient but I can't really think of any specific examples about it (Group D: Interview 2).*

Follow-Up Interview Insights and Understandings

In the follow-up interviews, the boys provided new insights into the program that they did not comment about during the first set of interviews. It appeared that allowing the boys six months' time to process the experience brought out different insights that the boys did not comment on initially. Brodie highlights the point that it was not until the boys were removed and had distance from the program, that they were able to make connections of what they learnt and have time to fully process the experience:

> *When you get back [you realise], but while you're there, you don't necessarily make the connections. I enjoyed it but, you might not*

think it's the best thing at the time. Getting back, you can really see how different it is and why you get put on the program (Group A: Interview 2).

The boys' new insights six months after program specifically related to two conceptualisations; (1) the level of difficulty of the program challenges, and (2) the link between challenge and fun. The following sections describe these sub-themes in further detail.

Level of difficulty of the program challenges.

As outlined in the 'challenge' and 'response to challenge' themes, program challenges required the boys to negotiate difficulties by apply coping skills and psychosocial attributes. Students responded in many ways to program difficulties, such as crying, becoming frustrated, extreme joy and happiness or getting angry with the situation. Their responses indicate that they did, in fact, find the obstacles difficult. For example, Isaac states that *"I've only cried like five times. I learnt how much I can actually challenge myself and what I can achieve"* (Descriptive Diary: Day 19). However, after the boys were back at school and had experienced the achievement of completing 'City to Summit', more than half of the boys felt that the overall level of difficulty of the program could have been harder:

Jason: I didn't really find any aspect of it super challenging. I was expecting the solo to be more challenging (Group D: Interview 1).

The below conversation from the first set of interviews with Group A indicates that the boys felt the entire program could have been more challenging:

Elliot: Solo day should have been I think could have been longer.

Brodie: Um yeah, I agree with Elliot, it was definitely worthwhile. But it [City to Summit] was a bit easier than I thought it would be…

Matthew: I found the biking physically challenging…But other than that I thought physically it was pretty easy.

Elliot: For some kids, it was a lot harder than others.

Brodie: Yeah, I think maybe they could make the whole camp a little more physically harder…Because like after the days where you haven't done much, although like you feel good, you sorta feel like it's been sort of a cheap feeling… Like, I cheated myself through this day (Group A: Interview 1).

However, six months later, the boys had changed their opinions about the program challenges needing to be more difficult. In the follow-up interviews, more than half of the boys' suggested that the program didn't need to be more difficult, but that the level of difficulty of the program challenges should be aimed at the correct level for individuals, not the entire group. For example, Elliot acknowledges that for his resilience to be further developed, that the challenge level needed to be more difficult, however, this would not be the same for everyone:

City to Summit was a lot harder for some people than for me. And I think that if it was a lot harder for me, I would've got more out of it (Group A: Interview 2).

The conversation below that occurred within Interview Group D highlights the importance of specific program design which actively aims to include tasks and challenges that are aimed at the right level for individual students:

Cody: I think if it was more physically challenging, that it would have been too hard… like if it was more physically challenging, it would have had repercussions…

Kevin: Yeah like, everyone would be more tired and cranky.

Cody: Then you'd start becoming like mentally fatigued.

Jason: You'd be getting into camp late and…

Cody: And like be cranky, and the fat kids will be, you know, just struggling. They'd make it worse for everyone (Group D: Interview 2).

However, as Greg points out, *"I think maybe it's a little bit harder to just cater the challenge levels for everyone"* (Group B: Interview 2).

Link between challenge and fun.

When students were engaged in a challenge which was perceived to be a difficult, yet a fun activity, it appeared to have an increased lasting effect on their

ability to recall a situation six months later. This was especially applicable to activities or program challenges that they had had not done before 'City to Summit':

> *Frank: I think my best memory was just when we were rafting, and we got to run a solo boat. Cause it was kind of different and fun. I haven't done that before (Group D: Interview 2).*

More than half the boys made comments on their new understandings and conceptualisations about the relationship between the level of challenge and the fun factor they experienced whilst participating in the program. For example, Tristan from Group C proposes that there is a relationship between challenge and fun:

> *You'd probably get the resilience factor increasing if you made it more challenging. And then the experience or fun factor decreasing… So, there's something… like there's a relationship between those two [fun and challenge] (Group C: Interview 2).*

The data indicates that an activity is perceived to be 'fun' when it is difficult but achievable. If the boys consistently failed at the challenges presented due to a high level of difficulty, the 'fun' factor would decrease. Conversely, if the challenges were perceived to be too easy, the boys became disengaged and felt they had 'cheated' their way through the day (Brodie: Group A: Interview 1).

Theme Summary

This theme outlined the participant's self-reported understandings of their personal development and increases in their overall resilience capacity, including the development of numerous internal developmental assets such as self-reliance and independence, mental strength, perseverance and developmental tasks (e.g., tolerance and communication). Specifically, this theme highlighted how the boy's psychological state influenced their ability to learn, retain information and apply skills. For instance, when the boys were feeling over-aroused (extremely anxious or fearful), it appeared that this was not the best mental state to be experiencing for supporting their ability to learn. Conversely, when the boys were experiencing levels of under-arousal (boredom), the boys were less engaged in the learning process and program challenges.

Being immersed in a wilderness environment away from their normal urban setting, provided a comparison point for the boys' everyday lives, resulting in the boys' being more appreciative and showing gratitude for their normal life circumstances at home and at school (e.g., realising the amount specific family members do for them at home). This resulted in the boys being more appreciative and grateful for their relationships with family. The boys' also experienced feelings of gratitude and appreciation when they became aware of one's privileges, such as their access to technology, shelter, material items, food and running water.

Overall, the boys generally felt that the program impacted them in positive ways. For instance, all boys reported positive learning outcomes when they felt either a sense of achievement or a sense of adventure. However, on the whole, the

boys struggled to articulate the direct effect the program had on them, describing their development as ‘unconscious’. The boys felt that their learning had just been ‘ingrained’ in them throughout the experience.

The six months distance between the program’s completion and the post-program interviews allowed the boys’ time for reflection, providing new insights that the boys did not conceptualise originally in the first set of interviews. Six months after the program, the boys’ felt that there was an association between the level of challenge and the level of fun experienced during ‘City to Summit’. It was no surprise that all the boys’ found the program challenges difficult, however, in the first set of interviews, the majority of boys felt that program challenges needed to be more difficult in order to increase levels of resilience. Whereas, in the follow-up interviews, more than half the boys suggested that the level of difficulty of the program challenges should not be changed and that the program challenges should also cater for individuals specifically.

Theme 4: Relationships

External Developmental Assets

In contrast to the internal assets presented in the previous personal development theme, the relationships theme captured three significant sub-themes in relation to the participants developing their external assets; (1) relationships with the natural environment, (2) relationships with leaders, and (3) relationships with peers (see Figure *5.19*). Throughout this next section, supportive accounts are provided, including researcher observations, participant reflections and

evidence of the boy's experiences. The overall relationship theme will close with a summary of the major contributing factors in developing these relationships.

Relationship with the natural environment.

The boys from all four interview groups were easily able to articulate how immersion in the wilderness setting impacted both their perceptions of the natural environment and the positive experiences they had in nature. They were also able to explain in detail how being away from urban life gave them a heightened sense of appreciation for family, technology and modern appliances (see Table 5.8). For example, Bob stated:

> *I'm like Dale. I really learnt how much I like the outdoors and how much I really like nature and just being out here (Descriptive Diary: Day 19).*

The boys also became aware of and appreciated the beauty and aesthetics of nature. Their comments indicate that they developed a closer relationship with nature and became more respectful and aware of environmental impacts and the sensitivities of the environment:

> *Scott: It's [the environment] just so fragile, so we need to look after it. That's why we use the paths and toilets and stuff that Parks [Victoria] make so we can keep it beautiful for future generations (Descriptive Diary: Day 19).*

> *Dale: The environment is just so diverse. We have been through so many different environments. From the Mitta Mitta River to*

farmland, to bush and now we are in the Alps above the trees (Descriptive Diary: Day 19).

It was clear that when the students started to develop an understanding of the environmental resources we rely on as humans, consequently, they started increasing their levels of respect and appreciation of the environment. An example of this is when Isaac highlighted his change in perceptions and an increase in respect for nature:

Water is something I respect way more now. We have travelled on it, drank it, washed within, and it's just so beautiful and crystal clear up here (Descriptive Diary: Day 19).

Solitude in the wilderness also provided the boys with new, exciting experiences that offered opportunities to experience a connection with wildlife that they would not usually experience at home. For instance, Tan said, *"I remember the sound that the wombat made during my solo, I will never forget that" (Descriptive Diary: Day 15).* Bob also loved spending time in the environment, exploring and *"looking at the insects and the spiders out in the bush. They are so different and cool; you don't get that in the city"* (Descriptive Diary: Day 15). Syed also appreciated moments spent in nature during the program:

I love listening to the sound of wild brumbies around your tent. That was so awesome (Descriptive Diary: Day 15).

However, while all boys interviewed and observed were able to explain the positive experiences that occurred when they were in the natural environment, they found it difficult to express their feelings about their connection with the environment, their relationship to it and what the environment meant to them. The data from the observation diary implies that the boys in Group 9 clearly demonstrated a connection and positive relationship with the environment due to their comments and behaviour, yet they just struggled to articulate their feelings and put it into words (Observation Diary: 7, 9, 10, 18). For example, the researcher comments:

> *During the debrief today, the boys were talking about how much the loved their solo time each day and just hanging out in the bush, but they couldn't really explain how they felt about the environment (Observation Diary: Day 18).*

Relationships with leaders.

Each of the 17 groups had a different group leader for their 'City to Summit' experience. The relationships that the participants developed with their group leaders appeared to have a significant impact on the participant's experience during and after the program. Interestingly, while each group had different leaders, who had varying skill sets, qualifications, levels of experience, personalities, leadership skills, and facilitation styles, sixteen of the eighteen boys commented on how the impacts of their group leaders improved their experience. Similarly, all boys in Group 9 commented on the positive impact of their leader,

such as Jack who expressed his gratitude in a debrief during one of the last nights of the program:

> *Thank you so much [group leader's name], this has been one of the best things I've ever done in my life thanks to you (Descriptive Diary: Day 19).*

Leaders role in relationship development.

Leaders played a critical role in group development and the development of relationships during outdoor education programs. It appeared that the primary factor contributing to the development of meaningful relationships with leaders, was the ability for group leaders to develop trusting, positive connections with the students early in the program. Figure *5.21* shows an example of Group 9's leader playing games with his students on Day 3 to assist in developing relationships with the boys early in the program.

Once the group leaders had developed trust with individuals and their groups, the boys' relationships with their group leaders appeared to be influenced by two other factors: (1) the group leader's ability to read and manage group dynamics, and consequently, facilitate the group accordingly, and (2) the group leader's ability to apply leadership and facilitation skills when required. For example, Reece recalls how his group leaders had a positive impact on his experience. This seemed to be due to his group leader's ability to apply leadership skills, such as supporting him during difficulties, keep up the group's motivation and providing knowledge to support the boy's experience:

I enjoyed it a lot ['City to Summit'], and the main reason for that was because I had two really good group leaders. They helped us out when we were struggling. Yeah, I was always getting advice and stuff of them. And yeah, they just kept us motivated (Group B: Interview 1).

Figure 5.21. Day 3: Leader's and participant's playing games.

One of the key roles of group leaders was to use a range of facilitation techniques to assist students to manage issues and conflicting situations within the groups. The next example demonstrates how a leader applied facilitation and conflict resolution strategies by implementing a problem-focused coping activity that helped their group to express their feelings. This is an example of how the group leader was able to recognise group dynamic issues and apply strategies that not only helped to resolve group conflicts but also influenced the participant's relationships and perceptions of the group leader.

> *Frank: We often had these things called 'summits' where we'd all write down on a piece of paper our problems. We just had a piece of paper and pen, and we would hand it around. And we'd write down any problems we had. And then it would stay anonymous and then our group leader would read them out to the group and then chuck them into the fire once we've resolved it. That was awesome how he [group leader] did that (Group D: Interview 1).*

In another example, Lachlan interprets a quote often used by his group leader, which demonstrates how his group leader provided support, knowledge and advice during the program. His comment also shows how his leader was able to help their group to refrain from using negative attitudes:

> *Lachlan: Um, as my camp leader said, "it only takes one drop of poison to poison a well". And it only takes one negative person to speak or say something to just ruin the group (Group C: interview 1).*

Facilitation methods, such as highlighting a point or using memorable quotes as teachable moments, appeared to have positively impacted their group dynamics and may have also reduced the likelihood of team conflicts occurring due to negativity, which ultimately impacts the team's relationships with others.

An example of exceptional facilitation and group management by Group 9's leader was observed during the hiking leg to the top of Mount Misery. In this section, the boys were required to hike up a steep 6km uphill incline. It was at this

point that Group 9's morale was very low (see Figure *5.22*). The group leader recognised that the group was struggling with managing their emotional and social responses to the physical challenge, as there was lots of complaining and negative comments occurring amongst the group (Observation Diary: Day 13).

Figure 5.22. Group 9 complaining to one another at the top of Mt Misery.

The leader was observed initiating a discussion with the entire group in which he outlined his 'positive thinking model' and how the positive thinking cycle was impacted upon by their habits, beliefs in spirituality, attitude and current environment (see *Figure 5.23* below) (Descriptive Diary: Day 13). During this group discussion, he explained the model in detail and told the boys about the power of choice, and how they all had the power to choose how they felt in any given situation (Observation Diary: Day 13). The tool was applicable for

individual use, as well as within the group to help them manage their responses to difficulties not only in this current challenge but also in future challenges.

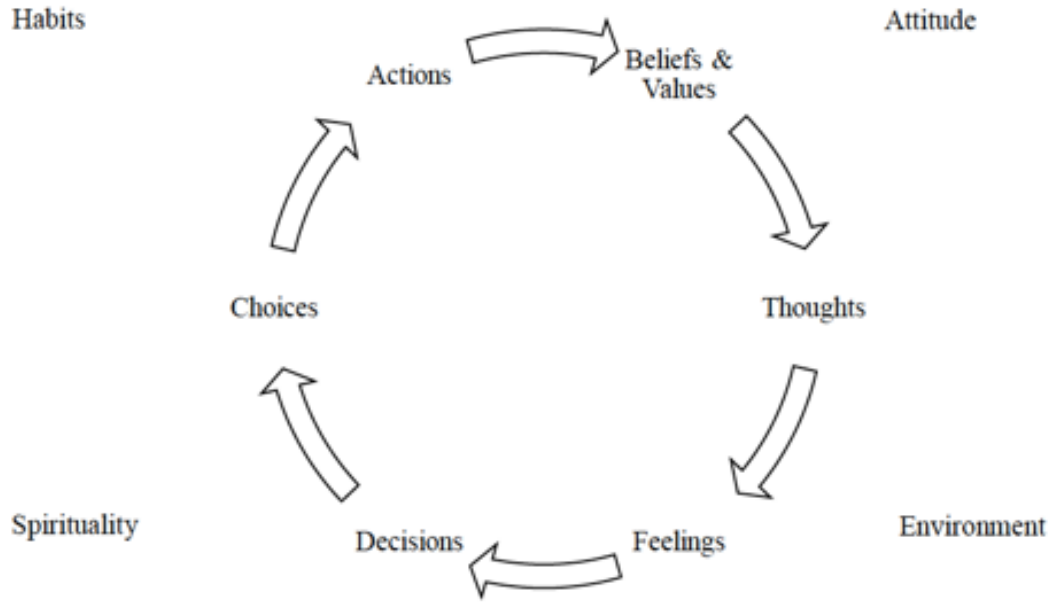


Figure 5.23. The 'positive thinking model' from the leader of Group 9.

Immediately after this discussion, the boys displayed changes in behaviour, reverting to positive attitudes and behaviours (Observation Diary: Day 13). This conversation and learning experience appeared to have a considerable impact on Group 9. It influenced how they coped with the upcoming physical, mental, social and emotional challenges by causing the boys to become more aware of their current negative thoughts, attitudes or behaviours, and recommending that they reframe their negative thoughts to ones that were positive.

In this instance, the group leader had developed his relationships with the group in a particular way. He chose to introduce this model on Day 13, once he had already built trust and positive relationships with the group. His actions demonstrate his leadership abilities by firstly acknowledging that the group was experiencing difficulties and secondly by presenting the 'positive thinking model' (see *Figure 5.23*) at a moment where they needed it the most (Descriptive Diary: Day 13). The group leader recognised the need for positive reframing to assist the boys in managing the difficulties they were experiencing individually as well as a group and facilitated the group accordingly. Because of the prior relationships he had developed with the students, they listened to him during the crux of the challenge. Whereas, if this model had been delivered to the boys in a different context, or at a different time during the program, the model may not have resulted in the same positive impact or significance on his group (Observation Diary: Day 13).

The above situation demonstrates how one leader can impact an entire group by influencing their ability to cope with challenges through support, guidance and the application of facilitation and learning tools which altered the boys' perception of difficult situations through reflection and awareness. However, it is essential to acknowledge that the facilitation of this model only occurred with Group 9. This particular group leader was very experienced and well prepared, bringing along a laminated paper copy of the model to deliver to the boys at a time when there was an influential 'teachable moment' (Observation Diary: Day 13).

Interestingly, after this discussion, the positive behaviours and attitudes of Group 9 tended to continue over the course of the program (Observation Diary: Day 14, 18, 20). If a student started demonstrating any negativity, the boys initiated a conversation about the importance of the ‘positive thinking model' (Observation Diary: Day 14, 17, 19). However, there was one instance after the facilitation of the ‘positive thinking model’ where Group 9’s attitudes and behaviours became quite negative. The researcher then observed Group 9's leader facilitate take a different approach with an activity called ‘it makes me mad when…' During the activity, each participant was required to pour water into a bowl, while saying a comment about something that makes them feel ‘mad' or ‘frustrated'. The more the participant felt a strong or heightened sense of negative emotions, the more water they were required to pour into the bowl. As they poured the water into the bowl, participants would say, “it makes me mad when…”. For example:

> *Scott: It makes me mad when people intentionally try and piss people off.*
>
> *Dale: It makes me mad when people are ignorant.*
>
> *Cooper: It makes me mad when people don’t value silence.*
>
> *Syed: It makes me mad when we do these meetings, we shouldn’t have to do it guys.*

> *Group Leader: It makes me mad when people have a lack of tolerance and understanding towards one another (Descriptive Diary: Day16).*

After the group leader's final comment, he proceeded to overflow the bowl of water and throw the bowl of water up in the air, spilling water on everyone as he said, *"so, guys what do you think the purpose of this activity was?* Most of the boys stood there wet and in shock. Jack and Dale were the only ones to respond. Jack believed the purpose of the activity was "*to get everyone's opinion out in the open",* while Dale said *"Na, the bowl kinda represents the group and all of us have our things that make us mad, but then it overflows or exploded like we did. We need to get back to that positive thinking"* (Descriptive Diary: Day 16). The above examples demonstrate how leaders' can positively influence a group's development, manage conflict and create opportunities for relationships to become stronger, by applying specific facilitation styles, leadership skills and techniques.

Relationships with peers.

All participants interviewed and observed commented on how the relationships with their peers developed throughout the program, and how they felt their relationship development with their peers was one of the most important elements of 'City to Summit'. As James identified the program provided a platform for students to 'really' get to know one another*, "you really learn how to work together as a team and make new friendships that last quite a lot longer than while you're just school" (Group B: Interview 1).*

Even though the boys' may have spent their past four years of schooling with the same cohort of students, it seemed that across the board, the cohort did not know each other well. A common theme advocated by all the boys was that they tended to associate with the same people and friendship groups back at school before they participated in 'City to Summit'. Yarra College seemed to be aware of this as they strategically chose to place students in groups with boys they either didn't know well or wouldn't commonly associate with. The students had no choice of allocating who was in their group or whom they spent their 21-days. This strategic group planning undoubtedly influenced the development of the peer to peer relationships. As Syed, James and Lachlan acknowledge, the fact that they were not placed in a group with their mates, allowed them to develop relationships with people in their year level that they usually wouldn't associate with:

> *Syed: I like the camaraderie-ship that we have built and the relationships I have developed with people I wouldn't normally talk to (Descriptive Diary: Day 8).*

> *James: I developed friendships. I didn't know all the people in my group that well. And then once on camp, then they became all pretty good friends. Some [people] were pretty funny and all that so I had a lot of fun (Group B: Interview 2).*

> *Lachlan: A main one [goal] for me was making new friends…I had six other people in my group that I've never interacted with. Or had but just hadn't really talked to and had a proper conversation with*

so it was really good getting to know those different people (Group C: Interview 1).

Another key factor contributing to the development of the boy's relationships was the program design and the extended length of the program. The additional time spent together, immersed in nature with the same small group who were travelling independently of other groups appeared to support this group development process. As Chris explained,

Being around the same people for two or three weeks. You don't really focus on it [making friends], but you just become friends with everyone. You may not be friends with someone but just cause you're around them a lot, you learn about them, and you learn to appreciate them. I just developed friendships, I guess (Group B: Interview 2).

Participation in the vast array of shared experiences and everyday group tasks, such as cooking, cleaning, lighting a fire or setting up the group shelter, provided opportunities for students to develop their teamwork skills and get to know each other more (see *Figure 5.24*). For instance, Syed said *"I appreciate having Ian in my duty group. I have gotten to know Ian through working together, and he is a really good guy" (Descriptive Diary: Day 9).*

Figure 5.24. A duty group working together.

The adventure activities also seemed to provide a platform for relationship development. Exposure to risk and adventure during the program challenges required the boys to apply and develop a range of skills, including initiative, teamwork, communication, support, leadership and conflict resolution. For instance, Ahmed mentioned that *"during all the activities, you just learn that people are people, not just some guy at school, but you really get to know their personalities (Descriptive Diary: Day 19).*

Figure 5.25 shows Group 9 playing around and forming relationships throughout the shared experience of hiking during the first week of the program. This is supported by Noah who explains, hiking on past camps, as well as 'City to Summit' has been the catalyst for him making best friends:

I actually love the feeling of hiking because it makes me remember that on all of my hiking camps, I have made some of my best mates just by chatting (Descriptive Diary: Day 15).

Figure 5.25. Peers having fun during hiking.

These program challenges and shared experiences also required the boys to develop trust for one another. An example of a situation requiring group trust was when the boys were required to support and hold onto each other while they were crossing the river so that no one would get swept down the fast current. As the program challenges increased in difficulty over the course of the trip, the need for the boys to trust one another also increased. Tan describes how his group developed skills throughout the program and how they learnt to demonstrate positive, caring behaviour towards one another:

> *I really learnt how compassionate and caring everyone is. I think it's really great that our group is so caring and we all look after each other (Descriptive Diary: Day 19).*

However, it is important to note that this type of behaviour did not occur at the start of the program. In the beginning, it was rare for the researcher to observe caring or compassionate behaviour amongst Group 9. Group members appeared to have an individual mindset, only focusing on themselves and what they were experiencing at the time (Observation Diary: Day 1, 2, 3).

As the program progressed, however, and the boys had more shared experiences, groups and individuals appeared to develop more trust for one another and form stronger bonds between group members. The development of these peer to peer relationships seemed to provide a safe, supportive, trustworthy environment which increased the likelihood of the boys talking openly to one another about their feelings. The nightly debriefs became a common, safe and supportive forum for the boys to express themselves without judgement (Observation Diary: 7, 8, 9, 10, 11, 13, 14, 19). An example of a student developing trust throughout the course of the program was provided by Ian from Group 9. During the first week of the program, Ian demonstrated reserved behaviour and did not form many relationships (Observation Diary: Day 9). He would rarely contribute to any of the group discussions, however, one particular night during a debrief, Ian opened up and expressed his feelings to the group like he never had before. He said, *"I need to work on my self-confidence. I don't know if any of you have noticed but I ask way too many questions, and I am not very*

self-confident. I have stayed in a guided boat the whole way down [the river], so yeah I need to work on my self-confidence" (Descriptive Diary: Day 9).

The researcher observed the boys in Group 9 starting to understand how expressing their needs and concerns to the group, made it more likely for the group to be able to help or address any issues. As the program increased in time, the boys became more likely to share their feelings, express caring and empathetic behaviour, and to provide support to one another. This is supported by Isaac's comment below that demonstrates how the boys have changed over the course of the program. From initially having an individualistic approach, to forming an awareness of each other and understanding the strengths of acting in the interests of the group:

> *It's amazing to see how much everyone has changed in my eyes and first impressions don't always last. Before the trip, I would have said the Year 10 boys at Yarra College are just selfish, immature boys. But now I learned that they are not all like that, and I've proved myself wrong. They're actually caring and really compassionate and actually really care about one another. So that's been awesome to see (Descriptive Diary: Day 19).*

The explanation of the following incident observed by the researcher highlights the influence that the environment had on group development and behaviours. By day nine, Group 9 was working exceptionally well together, they had developed strong bonds, and the group demonstrated trust of one another. (Observation Diary: Day 4, 5, 7). By this stage, they had shared many challenging

experiences in which the boys became more aware of the importance of group trust, supporting one another and their relationships in the wilderness environment.

However, on day nine, the researcher observed a noticeable change in Group 9's behaviour when they were camped at the football oval in Benambra after the rafting section (Observation Diary: Day 9). This was the only location during the trip where the students camped in ‘civilisation’ as they called it. As soon as the boy's entered back into an ‘urban' setting, they reverted back to their individualistic urban approach that was similar to their behaviour at the start of the program. Specifically, once they arrived in the township, they immediately started yelling, showing sarcastic attitudes and were talking over one another. They became distracted, lazy and were not at all interested in getting their group tasks completed. It was not until their group leader made them aware of their actions that their negative behaviour ceased. Once the students were immersed back in a semi-wilderness environment, their behaviour and group bonds were restored to how they were behaving prior to the arriving in the town of Benambra (Observation Diary: Day 10, 11).

Theme Summary

The relationships theme consisted of three distinct areas: (1) the participants’ relationships with the natural environment; (2) the participant's relationships with their leaders, and the roles and impacts of group leaders; and (3) the participant's relationships with their peers. The three main contributing factors that influenced these relationships were:

- The program design, curriculum and learning objectives;
- Being immersed in a novel, wilderness setting away from modern life distractions and;
- The impact of how the group leader applied facilitation and leadership skills throughout the program.

Theme 5: Transfer of Learning

The 'transfer of learning' theme focusses on whether or not the boys were able to maintain the psychosocial attributes and skills that they developed during the program. The theme presents evidence of the application of the various resilience attributes and coping skills that the boys used in various contexts during the six months post-program.

The results of the post-program interviews identified a range of outcomes. Some boys had a strong sense of what they learned from the experience and could describe influences on their current lives, while others were less clear on the skills and knowledge they had learned. However, all boys agreed that 'City to Summit' felt like a stand-alone experience, that everyone was just 'required to participate in' as part of their Year 10 curriculum.

Even though there was a general consensus that boys felt their levels of resilience had increased immediately after "City to Summit', in the post-program interviews sixteen out of the eighteen boys commented that they were not able to maintain their levels of resilience six months later. For example, Will and Tristan comment that:

Will: I was similar to Greg. When I got back, we were sort of like, 'yea I'm more resilient!'... And then pretty quickly it went back down to normal…it just went back to just the same. Like, nothing's really changed [after 'City to Summit] (Group B: Interview 2).

Tristan: I don't think 'City to Summit' has made me more resilient. I've seen it as more of an experience rather than something that's like built my resilience… To an extent, it built my confidence, but not significantly (Group C: Interview 2).

Their feelings of not maintaining levels of resilience may have been influenced by the boys not feeling they had been exposed to adversity in the six months post-program. When the boys were asked if they had experienced any significant challenges that they have had to deal with over the last few months at school, none of the boys reported being faced with a situation which had a level of difficulty where they felt as challenged and out of their depth as they were during 'City to Summit'. Such as Elliot, who reports, *"I'd probably say I'm more resilient overall, but I haven't used it" (Group A: Interview 2).*

In the comment below, Brodie, suggests that the exams at school were the only significant challenge they faced in the six months post-program, and how exam challenges are nothing like the level of challenge that 'City to Summit' presented. His comment also reveals a common finding, that all the boys found it very difficult to associate how they could apply the skills they developed in the outdoor education setting in their everyday lives. It is therefore difficult to report if the boys' levels of overall resilience have been maintained after the program

because it appears that they haven't had the opportunities to be tested or required to demonstrate the use of assets and coping skills to demonstrate their resilience capacity:

> *The exams have been pretty stressful but probably nothing as big as a challenge as City to Summit. Definitely not as physically [challenging] as City to Summit. Mentally, it's a different sort of mental challenge too… Doing homework is a different sort of mental challenge than say getting a big hike done (Group A: Interview 2).*

In reference to the boys' personal growth, the most common concept that the boys across all interview groups agreed on, was how difficult it was to maintain the learnings and their feelings of appreciation they initially felt after the program. As Elliot describes,

> *I definitely agree that the hardest part is to maintain it [what you have learnt]. It takes a really special kind of person to be able to maintain how you feel and what you learnt after the program (Group A: Interview 2).*

More than half of the students were able to provide examples of how they felt their feelings had dissipated six months after the program. For instance, James explains how his levels of general appreciation had decreased, and how he had returned to the way he felt and behaved before the 'City to Summit' experience:

> *I sort of appreciated a shower a lot when I got back cause we didn't have one for like three weeks…Like, I had a shower for a ridiculously long time when I got back… But now, I shower normally every day, and it's not something I really have as much like respect or appreciation for, I guess (Group B: Interview 2).*

His comment indicates how being in a unique setting, removed from the comforts and privileges of everyday urban life that people become accustomed to, such as access to shelter and hot running water, can cause various levels of appreciation and gratitude. However, it also indicates how these feelings can be lost once the individual is immersed back into their urban environment.

The sections that follow elaborate on and provide examples of the skills and learning the boys transferred from 'City to Summit' and were then able to apply these skills in the lives post-program. The data presented demonstrates that both the learnings that dissipated after the program, as well as the learnings and skills the boys were able to identify that they were continuing to use in their daily lives. The sections are divided into three parts; coping skills, internal assets and external assets.

Transference of Coping Skills

Participants reported common approaches to managing program challenges as described in Theme 2: Response to Challenge. Their comments identified specific problem-focused and emotion-focused coping strategies developed during the program (see Table 5.5 for common problem-focused and emotion-focused coping skills used).

When the boys were asked if they could provide any specific examples of coping skills they used to overcome challenges or difficulties they encountered in the six months post-program, the boys identified five problem-focused coping skills. These were the same coping skills the boys used during the program. These strategies included; ‘putting things into perspective’, ‘removing oneself from the stressor’, ‘ability to accept (and seek) social support’, 'coming to terms with difficulties’, and ‘chunking’. Intriguingly, not one of the participants reported the use of any emotional-focused coping skills such as ‘distraction’ and ‘avoidance’ in the six months after the program.

Evidence of how the boys were able to apply the problem-focused coping skills in their everyday lives is provided in Table 5.10. The boys’ examples provide confirmation of how they were able to maintain the use of these five skills in the six months after ‘City to Summit'. A common association that over half of the boys made was linking feelings of gratitude and appreciation with the coping strategy ‘putting things into perspective’ (see Elliot’s comment in Table 5.10). This was particularly applicable when the boys were comparing the comforts of their home life, to the ruggedness of living outdoors. Over one-third of the boys identified using other specific coping tools such as, planning or writing in a journal, which could be seen as additional ways to assist people in ‘coming to terms with difficulties’. This is highlighted in the comments below.

Table 5.10

Examples of participant's reporting the application of problem-focused coping strategies

Problem-Focused Coping Strategy	Examples of Participant's Comments
Putting things into perspective: *Gratitude and appreciation*	*Elliot: There's a thought in your head that we are extremely fortunate and it's like 90% of people… or more like 99% of people are a lot less fortunate than us. I'm a person who can get up each day and stay positive because I know how fortunate I am. A very small per cent of people might think that. But it helped me. It helped me to tell myself that. So, since City to Summit, I have a said that to myself a few times, just when you're feeling down or something. Feeling a bit deflated that you kind of you realise how fortunate you are (Group A: Interview 2).*
Removing oneself from the stressor: Ability to accept (and seek) social support: Coming to terms with difficulties: *Uses writing as a tool for reflection*	*James: Yeah, the way I handle things…like just going into my room and lay down and just thinking about it. Or maybe writing it [my problems] down, and then I think about it and go over it again. And once I'm more comfortable with it, I'll probably talk to someone about it. Like, my close friends and see what they think. I used to think to myself before, but not as much as I do now. Like I did it a bit before, but now I do it a lot more (Group B: Interview 2).*
Coming to terms with difficulties: *Planning*	*Cody: Yeah, definitely, planning…cause like I hate homework, but I just think like I'll do one-hour homework tonight even if it's like on a Friday night. So, I'll do one hour then I'll have the whole weekend. So just get it done and you'll be fine, and you just smash it out, and you don't have to worry… Before I'd probably sit down for 10 minutes and then be like 'oh, I'll do it on Sunday'. Sunday comes, and I'll be up till midnight, 1:00 am, and then I'll be really tired for Monday so, yeah (Group D: Interview 2).*
Removing oneself from the stressor:	*Will: I sort of like I go to my room and or like to go for a bike ride. I like just to get away from it. Chris: [When I was challenged] I went and ran like 10 K's. I just…I sort of had to just get away from everyone else (Group B: Interview 2).*
Chunking:	*Jason: I sort of do that now with school [chunking to manage challenges]. Like, I'll wake up in the morning, and I'd be like, 'oh, I don't really want to go to school today'. And I'll just think to myself, 'Well if I just get out of bed, have breakfast, you know, and then get out of the house, get on the tram, go to school'. You just sort of break it down. It makes it a lot easier… That's one thing that 'City to Summit' has taught me (Group C: Interview 2).*

Transference of Internal Assets

After the first set of interviews, almost all boys predicted that the skills they had developed during the program would be useful and they would be able to apply these skills in their lives back at home. For instance, Oliver suggests that:

> *It's not just resilience. I think there's a lot of other attributes that you bring back, like determination and persistence. So a lot of those things that you've learned from the camp you bring back so easily so you'll start to persist in certain areas and start to be like more determined about just life in general, to reach your goals and stuff…(Group C: Interview 1).*

However, while the boys predicted that these skills would transfer into other contexts, when they were asked if they had 'put any skills that you learnt from 'City to Summit' into practice at school', the boys had difficulty identifying examples, as Elliot summarised, *"I think 'City to Summit' would've definitely built mental resilience but I can't really think of any examples…* (Group C: Interview 2).

There was a general feeling across all the interview groups that they had not been exposed to challenges of the same difficulty as 'City to Summit' and may explain the lack of comments. It suggests that the boys either had not been exposed to challenges requiring the application of these skills or the boys did not recognise how to use these skills in relation to other aspects of their lives.

There were two internal assets that were used by the boys in the six months post-program; self-reliance (also referred to as independence) and tolerance. These internal assets are detailed in the following sections.

Transfer of self-reliance and independence.

About half of the boys were able to provide examples of how they demonstrated being more independent and self-reliant in their home lives after the program. Whilst, the other half of the boys, did not have feelings of being more independent and felt that their learnings had dissipated in the six months post-program.

During the program, the researcher observed a spectrum of interactions with the program challenges. At one end of the spectrum, some of the boys relied heavily on their peers and leaders to overcome obstacles, whereas on the other end there were boys who demonstrated high levels of independence and initiative undertaking obstacles on their own (Observation Diary: Day 2, 5, 7, 9, 19). The boys' comments throughout the interviews and researcher observations revealed that there was a continuum of experiences, as well as a continuum of learning (Observation Diary: Day 2, 5, 7, 9, 19). For instance, during the program, some of the boys, especially those who boarded at the school during the term, found tasks requiring self-reliance and independence, easier than others. Whereas, other boys found these daily tasks more difficult, especially the boys who had lived at home (Observation Diary: Day 2, 5, 7, 9, 19). This suggests that the boys in the latter group may have had less experience or opportunities to be self-reliant and independent in their home lives.

An illustration of the learning and experience continuum is provided by Cody's comment below. His comment highlights how the program design of 'City to Summit', required the boys to take action and practice daily tasks themselves without the assistance of parents or other adults to help them. He also acknowledges how in his normal life; his parents or cleaner's do a lot of daily tasks for him, therefore decreasing the opportunities for him to develop independence and the ability to learn essential life skills:

> *I was spoon-fed [before 'City to Summit']. I definitely would say that because, you know, Mum usually makes the bed. You're used to them making the bed, cooking food and stuff like that. But after 'City to Summit', I make my bed every morning… Even when our cleaner comes, and she tries to do it for us, I still do it anyway, just by default. And I appreciate all that stuff, you know. I just do it. I do all the chores without having to be asked… (Group D: Interview 2).*

Interestingly, Cody points out that he still makes his bed even if the cleaner or his Mum are there to do it for him. His comment indicates that he has made a conscious decision to do more for himself. Suggesting that this may be because he wants to demonstrate feelings of competency, adding value to his family, which is demonstrated by his actions. He appeared to want to maintain the feelings of self-reliance, independence and sense of competency that he had developed during 'City to Summit'.

For some boys, such as Cody, their experiences in developing independence and self-reliance during 'City to Summit', appeared to have influenced aspects of their daily life after the program. These skills appeared to have been developed through the boys engaging in simple daily tasks requiring them to be more responsible for themselves, such as making beds, cooking food or helping out with chores. Whereas, for other boys who had already been exposed to responsibilities requiring self-care, such as students who make their own lunch and beds each day, it didn't appear to make an impact in their daily living practices. This may indicate that these boys may have had higher levels of self-reliance and independence before the program.

Transfer of tolerance.

Unlike mental strength, when the boys were asked how their levels of tolerance were since they had been back in their school environment, more than half the boys were able to articulate how the felt their tolerance levels had been transferred into their daily lives and how they maintain their increased tolerance in the six months post-program. Elliot found that:

> *I've definitely improved tolerating people and their viewpoints and perspectives since 'City to Summit'. I've found that learning tolerance and accepting others opinions or whatever, is like really important, especially in the Bordo (School boarding house) (Group A: Interview 2).*

In another example, Chris discusses how he has become more tolerant of people in general. Instead of using aggressive and defensive behaviour, he has now learnt to listen to others opinions and take time to process information before acting:

> *I wouldn't really take anything [conflict or attitude] from anyone before 'City to Summit'. I'd probably just go off at the person, and I just wouldn't take it. So, I learned to just cop it on the chin. And sort it out later, I guess, instead of acting in the moment (Group B: Interview 2).*

Transference of External Assets

The external assets that the boys identified they had maintained were; positive relationships with peers, positive relationships with the environment, appreciation of relationships with family. The next section explores the boys' application and understandings of these external assets.

Transference of positive relationships.

Boys in all interview groups felt that they maintained the relationships they developed with the people in their group. Reece, for example, says that "*every time I walk past one of my group members we always have a little chuckle or a giggle about something that happened on camp"* (Group B: Interview 2). These positive relationships seemed to extend to other boys who participated in 'City to Summit', and had the same shared experience, even if they were not in the same group. For instance, Greg feels that *"there has definitely been a shift in the*

way I communicate with them and the way I see them [people in my year level] (Group B: Interview 2).

However, there was no indication that the boys were able to apply the skills of relationship building more broadly into their school setting. For instance, James and Chris imply that they would be more likely to speak to the students that did attend 'City to Summit' compared to the ones that didn't attend the program. Their comments indicate that having shared experiences was important for the cohort to not only make friendships but also maintain them:

> *James: Like, the people who did go [on 'City to Summit'], you can talk to them a lot more easily than the ones who didn't.*
>
> *Chris: Yeah, we socialise with the kids that we went away with cause you sort of shared something special with them, that you won't share with anyone else… You socialise more with those people than you would've before you left (Group B: Interview 2).*

Throughout the interviews, the boys discussed getting to know people and developing relationships with others that they wouldn't usually spend time with. However, this concept of building relationships, awareness of others and being more open, appears not to have extended beyond the program. The boys discussed developing positive relationships with other adults (i.e. leaders and teachers) during the program and described how they are utilising them as an external asset and supportive resource. However, in the six months post-program, none of the

boy's commented on developing positive relationships with their teachers once they returned to school or other adults that could be a potential source of support. ,

Transference of positive relationships with the environment.

Almost all of the boys in the interview groups commented on how they liked to spend more time outside after 'City to Summit'. Such as Brodie, whose comment indicates that be had previously visited the same place many times before, but after 'City to Summit', his stronger relationship with the environment, had resulted in a heightened sense of awareness and appreciation of nature:

> *I have a better appreciation of nature now. That's one thing 'City to Summit' taught me. You just look around and take in the stuff around you more. Like, in terms of nature, when I was out at my Grandma's farm walking around. I noticed a lot more, and I took in a lot more in after being on the 'City to Summit' (Group A: Interview 2).*

Over half the boys commented on feeling the calming and restorative effects of nature in the six months post-program. Seven of these boys mentioned that they didn't just go outside more because they liked spending time in nature, but they also used it as a method to manage stress and help them to cope with the challenges of everyday life. For instance, Kevin recalls:

> *I go outside more and play the guitar and things like that to cope. And yeah. I'm still doing that now…I know that's a link to 'City to*

Summit' like I remember thinking that. And I still do it now (Group D: Interview 2).

Appreciation of relationships with family.

The boys' comments varied as to whether they were able to maintain their feelings of appreciation that they immediately felt after the program. A common theme for appreciation of relationships with their families was that they had 'slipped back into a routine' after the program and lacked the awareness of their previous feelings.

Matthew: At the start, I was sort of keen on making a change around the house and like helping my family out and stuff. I did for like the first month or so. I was like helping with the dishes after dinner or something like that, but then as school sort of goes on, you sort of don't have time, and then I was sort of like falling back into my old routine (Group 1: Interview 2).

All eighteen boys commented on the fact that being immersed back into their normal urban environment impacted on their ability to maintain their learnings and feelings of appreciation. Specifically, two-thirds of the boys commented on how difficult it was to maintain their initial feelings of appreciation of their family members. Their comments emphasise the importance of maintaining conscious awareness of learnings. For instance, Matthew commented:

> *I still have like appreciation for what they do [family], but it's subconscious. It's not like I think about it every time my Mum's cleaning or something like that (Group 1: Interview 2).*

The boys in the other third felt they had maintained an appreciation of their family as Cody described:

> *I really appreciate my Dad. Cause like we've always had a really, like really strong relationship … But when I got back [from 'City to Summit'], I just started helping him out a lot more around the house. Our relationship is getting stronger and stronger by the day I would say (Group D: Interview 2).*

Participant's Struggle to Make Links Between Contexts

The boys in all interview groups found it easy to provide examples of the various skills they applied and developed in the outdoor environment when they were faced with challenges that were presented on the program (see Theme 3: Personal Development section). Across the board, they demonstrated applying a range of approaches to deal with the difficulties associated with these challenges (see Theme 2: Response to Challenge section). However, the main finding that came out of the 'transfer of learning' theme was how all eighteen boys struggled to make links between the contexts of learning in the program environment and their urban life. On the whole, the boys appeared to view the skills and concepts they learnt during 'City to Summit' in very concrete terms and they weren't able to apply the concepts more abstractly to other contexts of their lives. For example,

Elliot makes a comment immediately after the program, in which he highlights the attributes and skills he felt had been developed during the program. He also acknowledges that he feels these skills are specifically relevant to the outdoor environment and how it would be difficult for him to use these skills in his daily life:

> *'City to Summit' definitely made me more resilient...That's probably just toward hiking and stuff, cause those bags are very heavy. I don't know if it would affect me in life here [at school] because there's not a huge physical aspect… It's hard to bring that back to urban life I guess (Group A: Interview 1).*

He believes the skills learnt during 'City to Summit' consisted more of a physical nature, such as carrying heavy packs. Like most of the other boys, Elliot wasn't able to make links between connecting the concepts of specific coping skills and psychosocial attributes, with the potential of applying the same skills and assets in their daily life. Even though the boys were able to identify that they used specific skills, such as persistence by carrying their heavy pack up the hill, they couldn't see how they could apply persistence approaches to other aspects and challenges in their lives. Six months after the program, Elliot thinks that the skills he learnt during the program will definitely help to build resilience, but he struggled to see how these skills could be used in other areas of life, apart from the context in which he learnt the skills.

Elliot's views are consistent with the rest of the boys' opinions which indicate they feel the skills developed during the program are only relevant to the

context in which they learnt them. For example, even though in the first set of interview data, the boys identified the program as mentally challenging, statements made by Interview Group B below indicate that the boys linked the skills learnt to the physical aspects of the program. While Will acknowledges that challenges back at school may require mental strength, the boys' comments emphasise how they struggled to make links between the environmental differences, the different contexts of learning, and understand how they could apply the skills they learnt on the program back in their normal lives:

> *Will: I feel that was a bit more physical out there [on 'City to Summit'] and not as much down here [at school]. But I guess you'd say there's some correlation like mentally when you say plan out things.*
>
> *Greg: Yeah, I think the environment we're in there [wilderness context], and the environment here [school context] makes it two very different places…It's hard to relate them [school and the outdoor environment] to each other when they are completely different.*
>
> *James: Yeah, I agree with the environment thing. It's hard to relate, sort of out there is in the wilderness, compared to back here in the city. It's completely different environments (Group B: Interview 2).*

Theme Summary

During ‘City to Summit’, it was evident that the transfer of learning occurred with the skills and assets that were developed during the program. Five problem-focus coping skills that the boys used during the program, were also reported to be used to manage difficulties in their urban/home lives after completion of the program; (1) ‘putting things into perspective, (2) ‘removing oneself from the stressor’, (3) ‘ability to accept (and seek) social support’, (4) 'coming to terms with difficulties’, and (5) ‘chunking’.

In terms of resilience attributes, the boys were able to provide examples of where they used internal assets such as self-reliance, independence and tolerance in their lives after the program. All the boys commented on maintaining two external assets; positive relationships with their peers, and a positive relationship with the natural environment. In addition, one-third of the boys provided examples of how their feelings of appreciation of their family members flourished, while the other two-thirds commented on how difficult it was to maintain these initial feelings of appreciation of their family members six months after the program.

It was unclear if the boys maintained their initial self-reported levels of increased Overall Resilience, as none of the boys recounted being confronted with any significant events or experiences where they had to draw upon the assets and strategies they had developed during the program. The primary contributing factor affecting the boys’ ability to transfer learning from the outdoor education program into other areas of their lives, was gaining an undersatdning the different copcepts

of resilience and the contexts of the learning. Developing the skills in the novel program environment appeared to make it difficult to identify how to apply these same skills in a different context. They struggled to see how the skills they were using in the outdoor environment could also be used back at in their urban home environment. Their comments demonstrate how they thought in concrete terms about the skills and concepts they learnt in the outdoor environment, and how they viewed the learning environment of the outdoors and their home life as completely different. They were unable to identify the similarities and differences of the underlying premises and concepts of the coping skills and resilience attributes. Instead, their comments illustrate how they are unable to think more abstractly and identify how they may be able to apply these skills in different contexts or to different problems. The section that follows provides a detailed discussion of the interrelationships between the five major themes of the qualitative data (see Table 5.3).

Factors Impacting the Development of Resilience and Coping Skills and the Transfer of Learning

The previous sections of this chapter presented the themes that emerged from the qualitative results in Phase II and Phase III. A thematic analysis of this data revealed four elements that directly impacted the participant's capacity to develop resilience and coping skills during the outdoor education program, as well as influencing the participant's ability to transfer their learning into other contexts. The following discussion explores the interrelationships of the five major themes

and discusses how the participants engaged with the challenges and interacted with the social and physical context during the program.

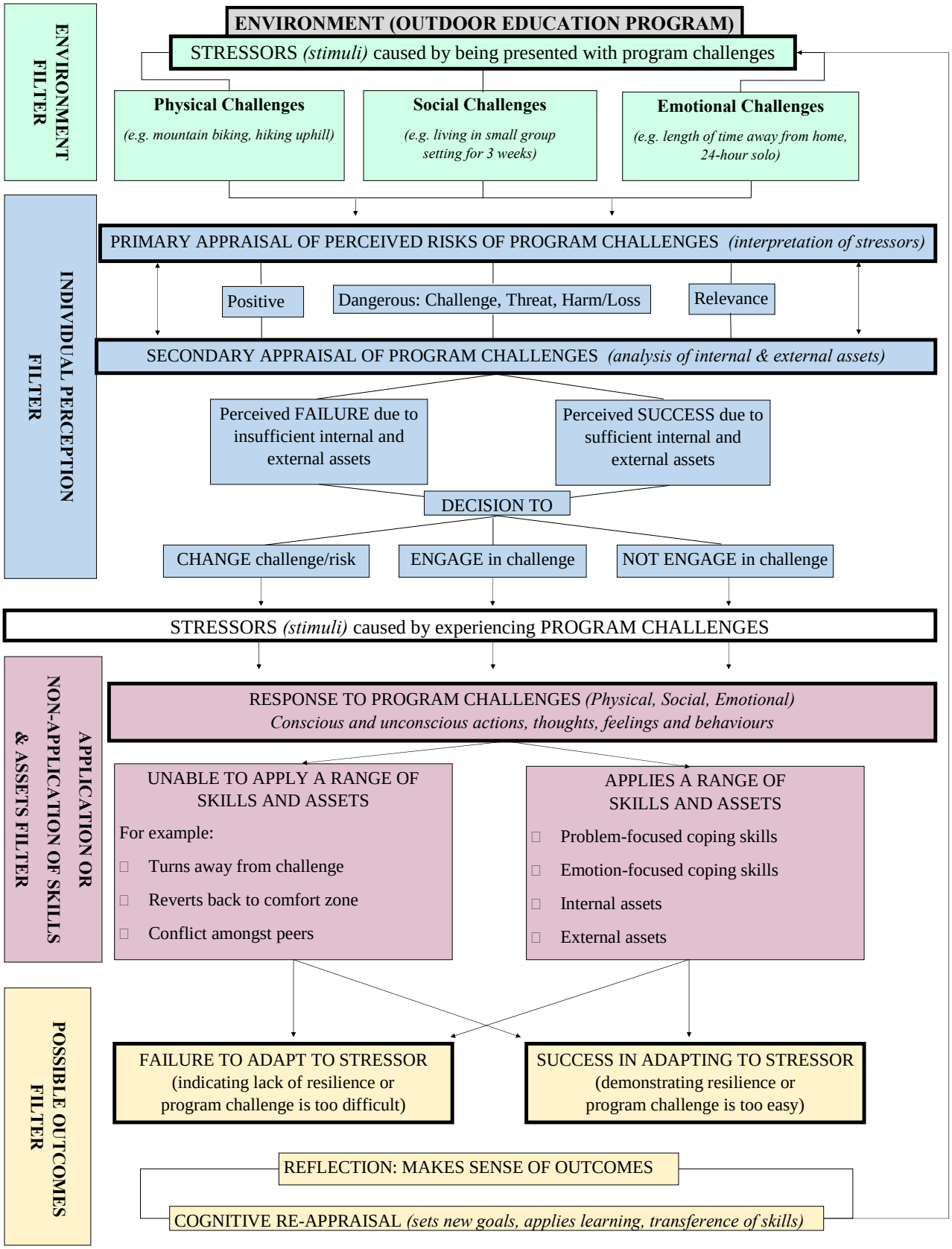
Transactional Processes of Stress Appraisal

To present the four key elements that emerged from the data, Figure *5.26* provides a visual summary of the qualitative results, displaying the processes of the participants' responses to program challenges during the outdoor education program. This model uses elements of Lazarus's 'Transactional Model of Stress and Coping' (1984) to compare and contrast the findings of this research (refer to Figure *2.3*). Figure *5.26* presents the four elements that have influenced the process of stress appraisal and the participant's response to the program challenges and demonstrates the transactional process of stress appraisal from the first instance of when the participants are presented with the program challenges during the program. This produced the stress(ors) which was followed by their decision-making processes of how they approached the challenges. The process continues into the participant's responses when they were experiencing stressors and program challenges. Finally, the process results in two possible outcomes; either (1) a participant's ability to adapt, or (2) a participant's inability to adapt to the program challenges These four factors have been presented in the model as filters: (1) environment filter; (2) the individual perception filter; (3) the application or non-application of skills and assets filter; and (4) the possible outcome filter. Each of the four stages in the transactional stress appraisal process filters down and influences the next stage of the transactional process. For

instance, a stressor presented in the environment filter will influence the stress appraisal in the individual perception filter.

The results emphasise that individuals reacted differently to the various program challenges, demonstrating that what may be perceived as an unachievable obstacle for one young person, may be the opportunity for personal growth for another. To demonstrate the difference of individuals perspectives, each of the stages in the process has been labelled as a ’filter’ to represent the potential differences in an individual’s perception. Just as filters are used in photography and on social media applications to show a different lens, view or perspective, the four 'filters' represent an individual's perspective at each of the four stages in the transactional process, demonstrating that each person will have a different frame of reference and experience during each stage.

The four filters are colour coded to clearly show the contributing factors in each filter. To explain this model in further detail, the next sections provide breakdowns of the model using three insets of the filters (see Figure *5.28*, Figure *5.29*, Figure *5.30*). Each of the four filters will be discussed in detail in effects to the impacts and relationships between of the four filters and the five major’s themes of the qualitative results.



Note. This model incorporates elements of Lazarus & Folkman's (1984, 1987) transactional model of stress and coping.

Figure 5.26. Transactional process of stress appraisal in response to program challenges

Environment filter.

The environment refers to the outdoor education program and context that was responsible for producing the stressors or stimuli, caused by the natural environment and the program challenges to which the boys reacted and responded. The environment filter encompasses the complex interplay between the physical, social and emotional challenges that the environment and program design provided. While participants were able to identify the specific challenges they faced, comments also indicated they often experienced more than one type of challenge at the same time. For instance, all eighteen boys found mountain biking to be the most physically challenging adventure activity during the program. However, the mountain biking also provided social challenges, where the boys were required to show tolerance of others who were less fit or physically able. The physical and social challenges often invoked emotional challenges, which required the application of resilience attributes and character strengths, such as mental strength, determination and perseverance.

The development of these character strengths and assets was observed throughout the program (see Figure *5.19*), with data showing the participants varying responses to program challenges, and the variance in individual's capacity to apply various coping strategies. As highlighted in Table 2.4, all 24 character strengths are typically possessed by most individuals to some degree; however, the level of which the strength is utilised to its capacity can be developed (Park et al., 2004; Peterson et al., 2007; Wood et al., 2011).

Supported by experimental and correlation investigations, research suggests that individuals who apply their character strengths, such as persistence, perseverance, gratitude and appreciation have reported an increase in their resilience after stressful incidences it (Peterson, Park, & Seligman, 2005. As mentioned in the literature review, prior studies have noted the importance developing these character strengths {Park, 2004), resilience attributes (Wagnild, 2009) and developmental assets (Benson, 2007) to improve the likelihood for young people to experience enhanced health and overall well-being and work as a buffer to assist young people in overcoming problems and managing the stressors of daily life (Park et al., 2004; Peterson et al., 2007; Wood et al., 2011).

Immersion in a wilderness environment (novel setting) away from modern life distractions and normal urban life, provided opportunities for the developmental of internal and external assets. For instance, the unfamiliar environment appeared to provide many benefits, including providing opportunities to compare and contrast circumstances to help them to cope with difficulties. This is supported by Yoshino (2008) who's study showed that over half of participants indicated the main stressors of the program were the activities, the intensity of the natural environment and the novelty of the new experience.

The social, mental, emotional and physical challenges provided by living with a small group in a novel environment while being exposed to challenges, created an ideal platform to form positive bonds and relationships with peers and leaders. These elements are supported by other models and frameworks, such as the adventure therapy theoretical framework that also highlights factors such as

disequilibrium, novel setting, cooperative environment, feelings of accomplishment, processing the experience and transfer as being critical elements to personal growth and the learning process (Gass, 1993a; Nadler, 1993).

One of the most emotionally challenging experience, as highlighted by the boys, was being away from home for three weeks. The time away from their families highlighted how important their relationships with their family members were and how much their parents did for them on a daily basis. It also played an integral role in highlighting and understanding how privileged they were to have access to material things, such as hot running water, a comfortable home and transport, which they usually take for granted. The extended period of time in the novel setting also allowed opportunities for the boys to practice coping strategies, such as 'putting things into perspective', which was the most commonly applied problem-solving coping strategy used by the boys. For instance, when the boys did not have instant access to running water or a home cooked meal, they were required to become self-reliant and source the water or make the meal for themselves. Hence, causing them to 'put things into perspective', to compare and contrast familiar environments with the unfamiliar environment, and therefore, reflect on how lucky they are in their normal lives.

Level of challenge.

The program design of this extended journey style program supported the development of the boy's levels of resilience through a 'stress inoculation' process which involved creating challenges that gradually increased in the level of difficulty throughout their journey (See Appendix W for the progressive levels of

difficulties of adventure activities). This type of programming has been a common element in program design, that aims to provide participants with increasing exposure to challenges and increasing task complexity, which promotes a sense of mastery (Walsh & Golins, 1976). This is supported by Walsh and Golins (1976, p. 7) who state that outdoor education programs that increase "incrementally in terms of complexity and consequence", prove to be more successful as they are progressively sequenced and address the group's needs, skill levels, level of challenge and difficulty.

'City to Summit' created a heightened sense of arousal for participants by utilising the novelty and sense of disequilibrium created by being placed in a semi-wilderness environment. It became apparent that the disequilibrium caused tension between the boys' current reality and their established view of the world and personal capabilities. For instance, as illustrated by the boy's comments they experienced feelings of apprehension and nervousness about the experience before the program started.

Typically, the lessons learned throughout the program encompassed growth in either an individual's behaviour, group behaviour and/or the environment, and occur during the participant's adaption to the state of dissonance presented by the program challenges (Priest & Gass, 2018b). This state of dissonance is the 'anxious difference' between the individual's perception of their current state of being, and their perceived reality of where they would like to be once the problem or challenge has been solved (Priest & Gass, 2018b). For instance, Cooper (Group 9) felt disequilibrium when he was presented with the

jump rock challenge. Cooper didn't feel as though he could jump off the 9m high cliff due to his fears and emotional responses to the challenge. He was stretched beyond his confront zone; however, he had the motivation and support from his peers and leaders and chose to engage in the challenge. The sense of achievement in overcoming his fears and a challenge that he didn't think he could do, *"just felt so good"* (Descriptive Diary: Day 9).

As Yerkes and Dodson (1908) noted, one way to stimulate change in the behaviour of participants is to create situations that produce strong adaptive dissonance. Through repeated exposure to the challenge, as a result, a sense of mastery may occur through the participants successfully adapting to the dissonance (caused by challenging circumstances), which then motivates behavioural change (Long, 2011; Meichenbaum, 2017b, p. 122). Therefore, the gap between the perceived state of dissonance and a feeling of a sense of mastery or competence, is adaption. Adaption was demonstrated by the boys throughout the program when they applied psychosocial attributes and coping skills to help them adapt to stressors. As Brodie suggests, the reason the boys felt the program developed their overall resilience was because the boys were exposed to difficult challenges which extended them beyond their comfort zones, whilst still feeling like they could achieve or be successful in overcoming the challenge:

> *I reckon it [the program] does build resilience, but I reckon it's only because of the one or two hardest things you do on camp. Like, again with the cycling, you're trying your hardest, it's getting*

> *you out of your comfort zones, but then you know you can achieve it (Group A: Interview 1).*

The findings of this research indicate that the level of arousal is a key indicator for participants to experience optimal levels of learning. For instance, the boys frequently spoke about the relationship between the level of challenge and the level of fun, referred to as the 'fun factor', that the boys experienced during the program. This may also be explained as having a 'peak experience' or feeling 'optimal levels of arousal' (Ellis, 1973; Martin & Priest, 1986; Priest, 1999; Priest & Baillie, 1987; Yerkes & Dodson, 1908). This was evident in the data when the boys demonstrated complete engagement and focus on tasks that were appropriately challenging. For example, Greg from Interview Group B suggests there is a sweet spot for individuals, where the 'fun factor' and 'challenge levels' intersect:

> *There would've been a spot, like, in the challenge level, where there is the difficulty that is just right, and then you would also get as much fun out of is as you can… Like, where the two cross [fun and challenge (Group B: Interview 2).*

If the challenge or perceived risk presented to the participants was too high, there is a danger that the participant will experience misadventure, or devastation and disaster (Martin & Priest, 1986; Priest, 1999; Priest & Baillie, 1987) (see the adventure experience paradigm theory on page 88). On the contrary, if programs are designed with the right level of challenge, the 'sweet

spot', that matches the individuals needs in terms of risk and competence, the challenge will require the participant to fully engage, which deepens their experience, ability to learn from the experience and requires them to focus on the present moment (D'Amato & Krasny, 2011).

As Figure *2.6* in the literature review indicates, optimal arousal occurs when a participant's level of arousal and performance are at their peaks (Yerkes & Dodson, 1908). If the levels of arousal are high (over-arousal) and the participants level of performance (competency) is low, programs challenges may create anxieties and lead to misadventure or devastation and disaster. Conversely, if the levels of arousal are low (under-arousal) and the participants' level of performance (competency) is high, this may result in feelings of boredom and disengagement. Therefore, the optimal level of arousal is the midpoint between boredom and anxiety (Ellis, 1973; Yerkes & Dodson, 1908). For example, when the boys felt they went challenged enough and got into camp early, they felt bored and 'cheated' because they hadn't been pushed enough (Brodie, Group A: Interview 1).

Based on the findings of this study, a clear link can be made between the Adventure Experience Paradigm (Martin & Priest, 1986; Priest, 1999), the Yerkes-Dodson law (Yerkes & Dodson, 1908) and the Goldilocks principle. Similar to Yerkes-Dodson law (Yerkes & Dodson, 1908) the Goldilocks principal uses the analogy from the classic children's storybook, whereby the program challenges are designed at a level that is 'just right' for individuals (see Figure *5.27*). To elaborate on this analogy, program challenges throughout the entire

program should be designed where individuals are experiencing challenges that are ‘not too difficult’ (with risk of putting participants in a state of fear or anxiety), ‘not too little’ (which increases the likelihood of apathy and boredom), but challenges that are ‘just right’ for individuals, known as the ‘Goldilocks Zone’ or ‘fun factor’. Providing program challenges that sit within the ‘Goldilocks Zone’, where the difficulty of challenges are perceived to be ‘manageable’ to ‘just manageable’, increased the likelihood of participants experiencing peak adventure and optimal levels of arousal. For example, as Brodie’s comment above indicates, he felt that it was a combination of getting out of your comfort zone, engaging in challenges that were perceived to be difficult, yet achievable, that helped him to build resilience (Group A: Interview 1).

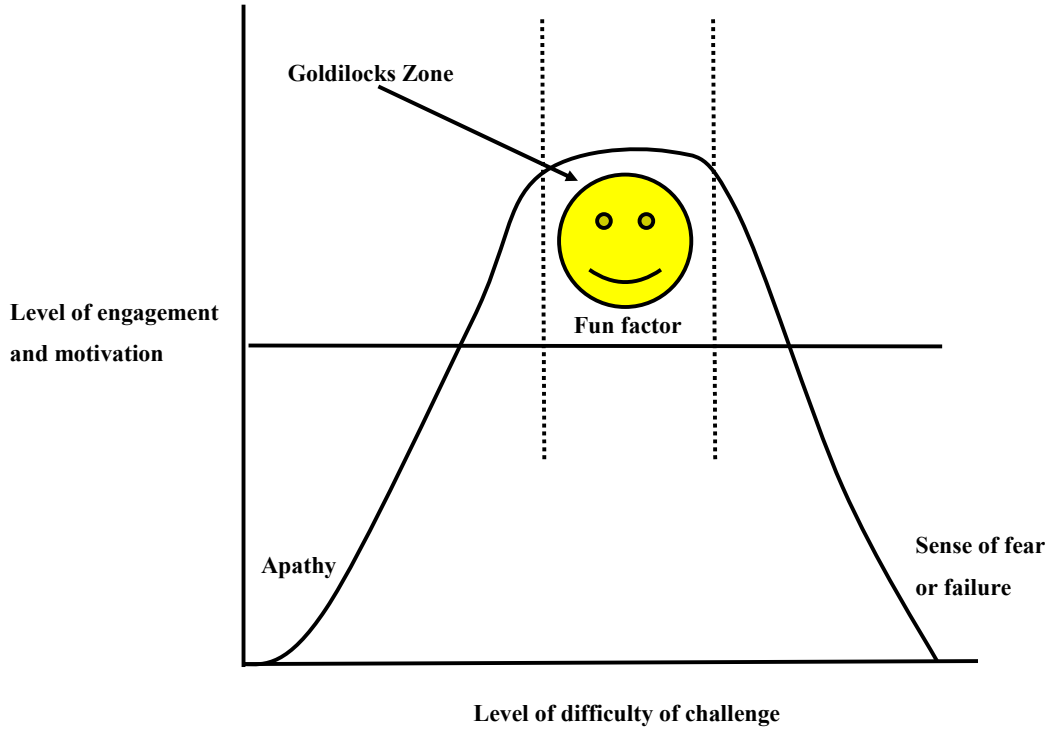


Figure 5.27. Goldilocks approach to program design.

The current findings that emphasise the importance of challenges that are aimed at the right level of difficulty to promote optimal levels of arousal and peak experience, resulting in participants feeling a sense of achievement, whilst also fostering the development of psychosocial attributes and coping skills, is supported by the results of Shellman's (2009) study. Her study revealed that participants who were tested to their limits or close to their limits (Goldilocks Zone), also experienced a sense of achievement and positive feelings from knowing that they could achieve more than they thought was previously possible. Shellman (2009) also found that resilience was highly correlated with factors including the responsibilities participants had, the successes they felt they achieved, and the decisions they had made. The boys in the current study also felt that when they were persisting with the difficulties of program challenges and when leaders *'let us make mistakes'* and allowed the boys to make their own decisions, this helped them to feel a sense of achievement and develop psychosocial attributes and coping skills, such as self-reliance and healthy decision-making skills (Jason, Group D: Interview 1; Brodie, Group A: Interview 1).

Individual perception filter.

Mainstream outdoor education programs typically apply the concepts of eustress and stress inoculation to challenge participants physically, spiritually, mentally, emotionally and socially with the intent of intrapersonal and interpersonal development of participants (Meichenbaum & Cameron, 1989; Neill, 2008; Selye, 1974).The factors described in the environment filter above

contribute to an individual's perception of the stressors and stimuli caused by the introduction of the program challenges. The individual perception filter explains the process of primary and secondary appraisal of the boy's personal perceptions and decision-making process once they were exposed to the program challenges. This is the stage in the process where the participants know that they will be experiencing these challenges in the future but are not currently engaged in physically experiencing the program challenge yet.

In accordance with Transactional Theory (Lazarus, 1984; Wong et al., 2006), when participants are presented with program challenges, their initial interpretation of the stressors (primary appraisal) results in determining what the problem is, whether it is in their control and what internal and external assets (resources) they have to manage themselves to adapt to the stressor (Wong et al., 2006, p. 236). While Lazarus's 'Transactional Model of Stress and Coping' model (1984)(see Figure *2.3*) presents the secondary appraisal as a linear process which occurs in response to the initial primary appraisal, the findings of this research indicates the that transactional process of primary and secondary appraisal is not linear, but rather that the participants analysis of their internal and external assets (secondary appraisal) and their interpretation of the stressors (primary appraisal) both interact and influence one another (refer to Figure *5.26*). For instance, initially, the boys determined whether the stressor was positive, had relevance or was perceived as dangerous (challenge, threat, harm/loss) during the primary appraisal, which was followed by the secondary appraisal process. However, the secondary appraisal and identification of internal and external assets may change

the evaluation of the stressors presented, resulting in a further secondary appraisal which determined the boy's response options.

When the boys interpreted the difficulty as positive, they tended to express pleasurable emotions, such as happiness, exhilaration and excitement (Lazarus & Folkman, p. 32). As Lazarus and Folkman (1984) suggest, this is when benign-positive appraisals occur. On the other hand, when participants perceived the difficulty as a perceived challenge, threat or something that may cause harm or loss, the boys typically showed emotional and behavioural responses as a result of their fear response, such as anxiety, worry and frustration.

Being presented with the program challenges provided the boys both eustress and distress. This required the boys to go through the transactional process of stress appraisal in responses to the program challenge. Eustress is directly associated with the concept of adaptive dissonance (Walsh & Golins, 1976). This is where the participants are required to adjust their behaviours to resolve their feelings of disequilibrium, the gap between their perceived present and future states. The disequilibrium was caused by eustress, and therefore, to acquire their desired state of equilibrium, participants are required to adapt to the challenging circumstances (Priest & Gass, 2018b). For example, the boys commented on experiencing 'positive stress' (eustress) when they could choose to engage in program challenges that felt like it was 'something new', adventurous and perceived to be risky and difficult, yet just manageable (within the Goldilocks Zone). It was these types of stressors that resulted in optimal arousal, having fun, feeling satisfied, feeling a sense of adventure, accomplishment, and achievement:

Lachlan: I had a couple of most memorable moments. One was when we jumped off that rock cause it was really high. And I got a bit scared as I was standing on top of it. When I jumped off it was a really good feeling (Group C: Interview 1).

Meichenbaum (2017b) uses the analogy, that just like an individual's perception of beauty is in 'the eye of the beholder', so too in an individual's perception of stress. When the boys were determining their resources to approach program challenges, appraisal of internal assets may have included the participants self-esteem, self-efficacy, personal responsibility, physical capacities, decision-making skills, internal locus of control, existential beliefs, interpersonal trust, goals and commitments (Hans, 2000; Hong et al., 2011; Jew et al., 1999). In addition, appraisal of external assets may have included their level of support from peers, their group, the school and other significant adults (Benson, 2007; Benson et al., 2012; Benson et al., 1999; Bronfenbrenner, 1979; Lazarus & Folkman, 1984).

Figure *5.28* presents two feedback loops that occurred during the primary and secondary appraisal of program challenges; (1) the distress loop and, (2) the eustress loop. The distress feedback loop was initiated by an individual's perception that they do not currently have the personal capacity to cope with the demands of the stressors caused by the program challenges. Their perception in their inability to cope is influenced by a range of factors that determine whether they have the insufficient resources of internal assets (e.g., self-efficacy, internal locus of control) and external assets (e.g., peer or adult support). Conversely, the

eustress feedback loop is initiated by the range of factors that leads them to perceive they have skills and sufficient resources (internal and external assets) to cope with the demands of stressors (see Figure *5.28*).

As a response to the program challenge, three outcomes were observed in their decision-making process. Participants either chose to; (1) engage in the challenge, (2) change the perceived level of risk or level of challenge or (3) chose not to engage in the challenge. This process was followed by their responses to the challenges, demonstrating their actions and resulting in the outcome of either showing failure or success in adapting to the program challenges.

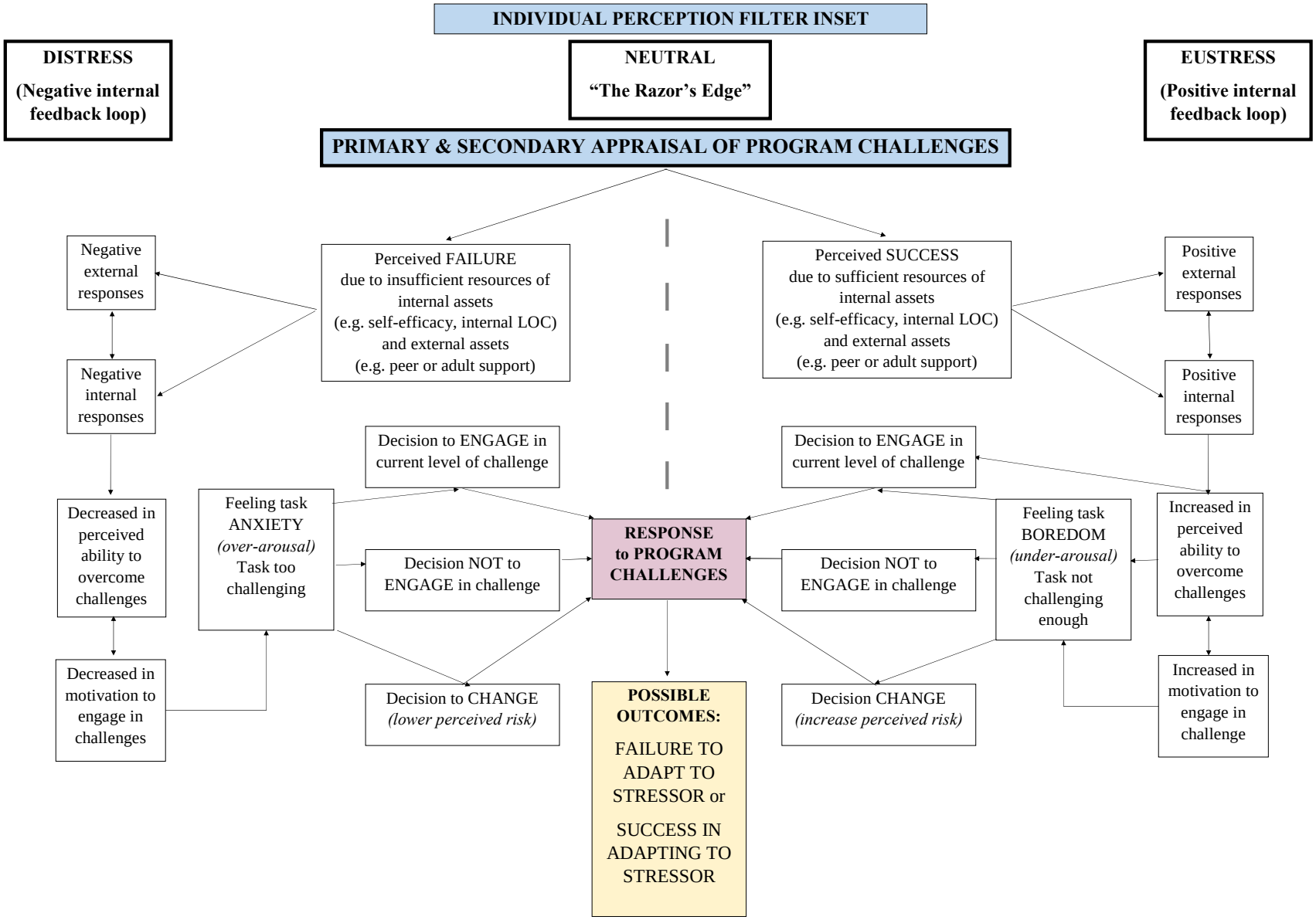


Figure 5.28. Inset 1: Individual perception filter.

Interestingly, even if the boys weren't completely sure if they had the skills or the capacity to accomplish the challenge, if they appeared to have a growth mindset and positive attitude, they were more likely to have a positive outcome. This is reinforced by Dweck's (2006) research in growth mindset that maintains young people are more likely to have positive learning experiences when they have a growth mindset. Nussbaum and Dweck (2008) also suggest that individuals with a growth mindset are more willing to try new things and step outside their comfort zones.

In addition, the length of the program supported the development of resilience attributes and coping skills by providing more opportunities to practice skills and develop a sense of mastery of the internal and external assets and coping skills developed throughout the program. The sense of mastery is directly related to the concept of self-efficacy (Bandura, 1977), which suggests that by mastering skills during an outdoor education program, one's perception of their own ability increases, thereby influencing an individual's self-efficacy. This is supported by Davidson (2016) who suggests that programs longer than five days in length can be effective in enhancing personal attributes, such as resilience and grit.

When the boys felt successful and experienced a sense of achievement, this appeared to influence their perception of their personal capabilities, which ultimately strengthened their self-esteem and enhanced self-efficacy. This finding is supported by Zimmerman and Cleary (2006) who posits that when young

people have a positive sense of personal agency and evaluate their success in achieving a challenging goal, their self-esteem and self-efficacy will be enhanced.

Following the primary and secondary appraisal interaction, participants typically had either one of two responses; a

1. perceived sense of potential failure due to insufficient resources of internal and external assets, or
2. a perceived sense of potential success due to sufficient resources of internal and external assets (see the Inset 1 in Figure *5.28* for further explanation).

The participants perceived failure or success in their own abilities to adapt to the program challenges, therefore impacted the boy's decision-making process.

Application or non-application of skills and assets filter.

As presented in the Individual Perception Filter (see Figure *5.28*), the cyclic processes of the primary and secondary appraisals of stressors/stimuli continue as an ongoing process when participants are exposed to new challenges or situations where they perceive something to be difficult or a threat. Once the boys had decided on their initial response to being presented with the program challenges, and they had decided to engage in the challenge, the boys would then physically engage in the program challenges (stressors). This filter demonstrates the stage of the process in which the boys responded to the program challenges, showing either the application or non-application of skills and assets.

When the boys were experiencing the stressors caused by the program challenges, they responded in a myriad of ways. Figure *5.29* presents the range of

responses the boys identified as skills and assets that they used in response to the program challenges, which resulted in demonstrating their resilience capacity and ability to adapt to the challenges.

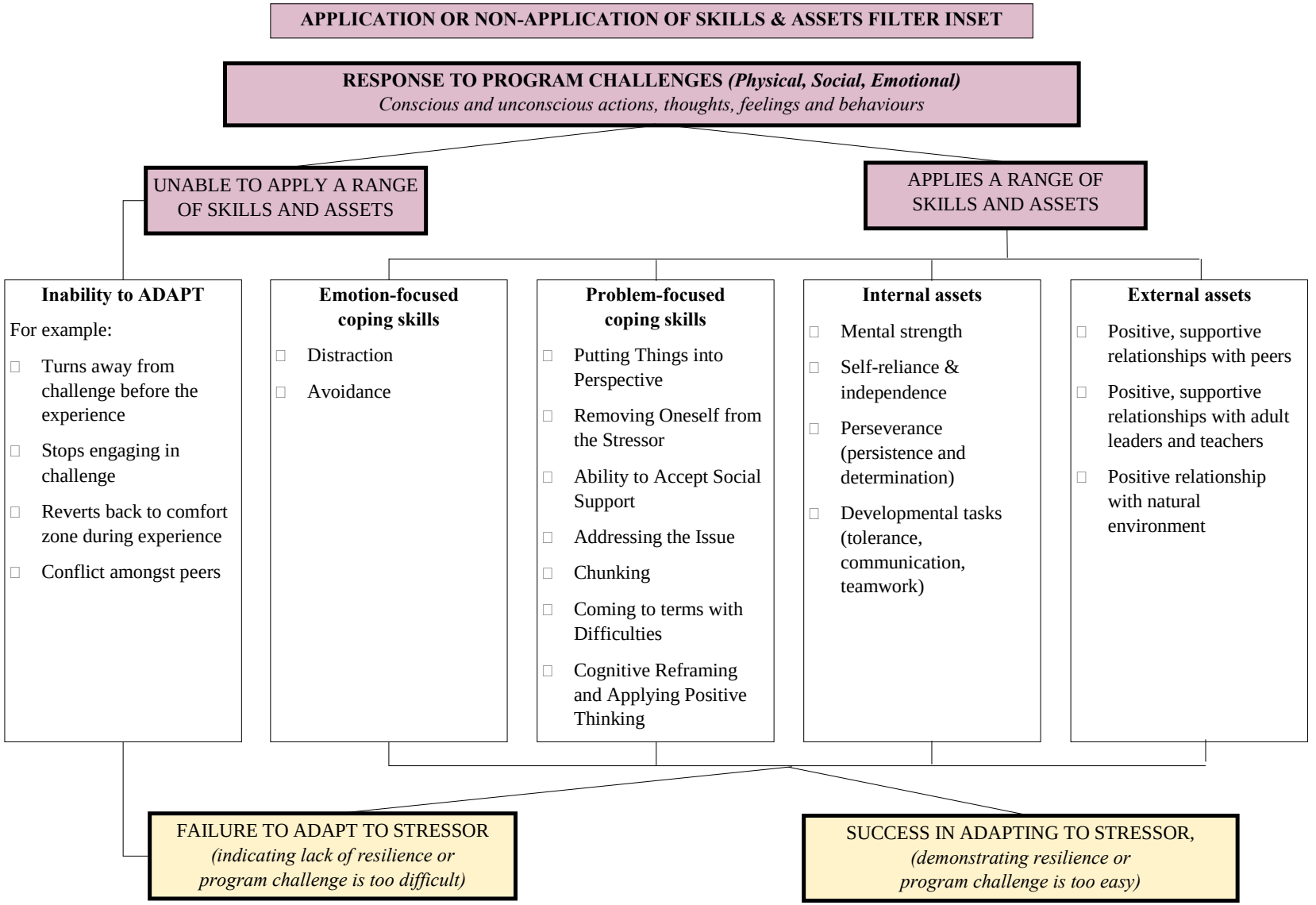


Figure 5.29. Inset 2: Application or non-application of skills assets filter.

Application of coping skills.

Copings skills were demonstrated by the behaviours, thoughts and actions taken to assist participants in adapting to the program challenges. The process of continual exposure to stressors allowed the boys to practice these skills through the stress inoculation process. Interestingly, the results indicate that the boys found ‘City to Summit' to be more mentally challenging than physically challenging. While most of the adventure activities presented physical challenges, these challenges caused varying emotional and behavioural responses which required the boys to apply problem-focused and emotion-focused coping skills (see Figure *5.29*).

Yoshino (2008) revealed that certain types of stress appraisal predicted certain types of coping strategies employed by participants. For example, the higher the level of difficulty of the challenge, the more participants would apply problem-focused coping skills. Yoshino’s (2008) results are consistent with this study, revealing that boys predominantly applied problem-focused coping strategies, such as active coping. ‘Active coping’ involves either cognitive or behavioural responses that either change how one thinks about the stressor or the strategy changes the nature of the stressor itself (Baker & Berenbaum, 2007; Carpenter, 1992). People who are exposed to more personal and environmental resources are more likely to rely on active coping skills and less likely to use avoidance coping strategies (Holahan & Moos, 1987).

Active coping required participants to recognise the problem and take specific targeted action to help minimise the stress that was caused by the

challenging situation. These specific efforts helped the boys to tolerate, reduce, or minimise the stressful circumstances. For example, James talks about his writing in a journal and reflecting on his thoughts as an active method of coping to help manage stress. He also recognises the use of other coping strategies, such as seeking social support from his friends and awareness of removing oneself from the stressor. In this case, he removes himself from the stressful circumstances and seeks solitude. This response is supported by Yoshino (2008), who found that social support and problem-focused coping were the most effective coping mechanisms. Her study also indicated that neither gender or perceived outdoor experience levels were significant factors in determining the individual types of coping styles that participants used. Yoshino (2008) also found that the types of copings strategies that were most used in responses to challenges were social support (31%), followed by problem-focused (16%), less-constructive (12%), and self-distractive (5%) coping skills.

Opposite to active coping strategies are avoidant coping strategies. Avoidant strategies impacted the boys directly by addressing the circumstances that were causing the stress. Distraction, a coping strategy used frequently by the boys, may be seen as a type of avoidant strategy. For instance, Holahan and Moos (1987) suggests that avoidant coping strategies are markers for adverse responses to stressful life events which may cause issues in the future. However, in the context of short-term difficulties, the boys have demonstrated that distraction, such as singing or talking to the person next to you while hiking, was a healthy

and productive method of coping and helped the boys manage the challenges they were faced with during the program.

It was evident that when the boys were continually experiencing phases of disequilibrium due to the physical, social and emotional challenges that were experienced daily, their emotional responses triggered them to search for and apply more effective coping strategies to manage their responses to the difficulties. For example, when the boys were observed applying the coping strategy of ‘coming to terms with difficulties’, the boys firstly acknowledged the situation they found themselves in. Secondly, they became aware of the stressors that were triggering their emotional responses, and then they would take actionable steps to manage the stressor or their emotional responses to the difficulties presented. Such as when Group 9 understood that they could not remove themselves from the inclement weather, they addressed the groups emotional responses (e.g., fear, worry, negative attitudes) and took action to cover themselves with a tarp to protect them from the wind and rain (Observation Diary: Day 17).

Participants used a range of ways to ‘put things into perspective', such as comparing past experiences and levels of difficulties of challenges, using time as a comparison, comparing environments or past failure as a motivator to help them manage their responses to program challenges. For example, participants utilised their ‘sense of achievement' from achieving past program challenges as a comparison point for other challenges (e.g., feeling the sense of achievement of achieving their goal of hiking to the top of Mount Misery, motivated the boys to

persevere and climb to the top of Mt Kosciusko). It is critical to point out that if the participant had not been exposed to prior challenges, they did not have a personal comparison point to draw on, thus making it very difficult or impossible to apply this type of problem-focused coping. This demonstrates the importance that the role of past experiences has on helping the participants to put things into perspective and compare and contrast their past responses and lessons learnt in previous challenging experiences. This highlights the need for young people to be continually provided with opportunities to be challenged, in a variety of challenging situations, with opportunities to acquire and practice skills, and be able to reflect and refine their learnings in a supportive, collaborative environment.

The coping skill of 'cognitive reframing and applying positive thinking' that was applied by the boys is also consistent with having a 'growth mindset'. When the boys engaged in a 'growth mindset' and having a positive attitude, they were able to move from the perception of thinking "why me, why should I have to do this" ('victim' mindset) to having a positive learning experience through engagement in and becoming successful in adapting to the challenge. For instance, when Oliver (Group C: Interview 1) notes the importance of keeping a positive attitude and having a growth mindset to manage his emotional responses to program challenges. This is supported by researchers in the area of 'growth mindset' (e.g., Bennett et al., 2013; Dweck, 2006 ; Nussbaum & Dweck, 2008; Payne et al., 2007) who support the notion that people who have a 'growth mindset' are more willing to engage in challenges, have new experiences and

venture outside their comfort zones, and as a result they experience personal development. However, while both emotion-focused and problem-focused coping skills played an important role in the participants effective responses to the program challenges (Lee et al., 2017), the use of problem-solving skills and problem-focused coping strategies should be promoted for effective, long term coping solutions that can be transferred and used in other contexts (Breinbauer & Maddaleno, 2005).

The results of this study demonstrate that the boys' coping mechanisms provided an advantage when responding to program challenges, by acting as a buffer between the individual's perceived stress (state of dissonance) and the personal development of the individual (development of resilience capacity and other skills). These results are supported by findings from Yoshino's (2008) study indicate that in most cases coping responses act as an 'asset' and can also be used as 'buffer' to assist individuals in the process of negotiating initial perceived stress and challenge, to moving towards an individual perceiving psychological growth.

Application of internal and external assets.

During the program, the boy's developmental assets acted as protective factors, which increased the likelihood of positive adaption to the program challenges (Benson, 1997, 2007; Benson et al., 2012; Benson et al., 1999). For instance, some of the interviewee's pointed out the importance of being 'mentally tough' or having 'mental toughness', which is also known as psychological resilience (Booth & Neill, 2017; Lin et al., 2017; Neill & Dias, 2001).

The participant's ability to cope with the program challenges was directly linked with their ability to draw upon their internal and external assets. In particular, positive supportive relationships, including the relationship with themselves, their peers and the group leaders. It was evident that these relationships provided the support, trust and collaboration required to assist in overcoming program challenges. For instance, when Matthew relied on the support and trust of Elliot to help him overcome his fear of heights during the jump rock challenge (Group A: Interview 1).

One of the three key contributing factors that influenced the boy's abilities to develop positive relationships with; their peers, leaders, and the natural environment, was the immersion in a novel, wilderness setting away from modern life distractions (e.g., smartphones, computers). As the boys highlighted, society relies so much on technology and it's difficult to get away from it (Group C: Interview 1). The substantial distance from the urban setting of their everyday lives meant that instead of using their time being distracted by technology (e.g., engaging in social media applications on their smartphones), they had the time and the circumstances to make real, face to face connections and focus on what they were doing (Brodie, Group A: Interview 1). This result is not surprising, as one of the goals of the program was to immerse participants in new, unique and challenging environments that help to create disequilibrium and foster the development of interpersonal and intrapersonal relationships.

Central to the development of positive relationships, was the leader's ability to create a safe, cooperative and supportive learning environment. The

study revealed that the group leader's role was significant in this learning process, as it was their responsibility to guide the learner through experiential learning processes. In supporting this notion, Roehlkepartain et al. (2017) found that when young people experienced strong developmental relationships with leaders, participants were more likely to show a clear sense of community identity, social responsibility and conservation leadership. In addition, Roehlkepartain et al. (2017) also found that adolescents who reported high levels of developmental relationships with caring adults (e.g., teachers and leaders), were eight times more likely to persevere with tasks that were challenging. The participants also enjoyed the hard work of challenges and felt that it was ok to make mistakes, compared to students who reported low levels of positive developmental relationships (Roehlkepartain et al., 2017).

All interviewees felt the cooperative and supportive learning environment created by peers and leaders, supported the development of positive relationships with one another. The boys striving together to overcome the challenges presented during the program with the support of the leader helped to develop trust in one another. The boys identified that through this process, they valued different aspects of each other which they had not previously noticed back in their school environment. They began to rely on one another in new ways and support one another through difficulties. These types of supportive relationships are crucial developmental assets and help young people to nurture the desire and capacity to thrive (The Search Institute, 2014, 2016).

It was clear that the function of the social group played a key role in participants' responses to challenges. The challenges tested participants and required individuals and groups to work together to achieve their desired outcomes. They were required to rely on each other to help them overcome program challenges (e.g., whitewater rafting down the Mitta Mitta River or setting up group shelter), or to help them 'put things into perspective', by comparing past experiences they have had together. Having these shared experiences where they were able to help one another, develop trust, and overcome programs challenges together, strengthen the bonds between the group members. Priest (1998) supports the importance of fostering group trust in the development of relationships, stating that "the acquisition and maintenance of trust is critical to the success of a team and goes hand in hand with cooperation and communication" (p.31).

It was the social interactions with peers, and the leader's ability to help facilitate reflection and awareness activities, that assisted the boys in making connections between the group and their environment. This is consistent with constructivist philosophies that advocate that an individual's knowledge and learning evolves through social negotiations with their interactions with others and their environments (e.g., meso-systems interactions) (Bronfenbrenner, 1981; Savery & Duffy, 2001; Ungar, 2012). This is also supported by outdoor education philosophies and program design which has long followed this constructivist approach aiming to create an environment that is intentionally supportive, collaborative and open to support the participants learning experiences and

promote the personal development of the participant (Sibthorp, 2003; Walsh & Golins, 1976).

'Shared experiences' became a key contributing factor to developing positive relationships in a supportive environment to foster the development of resilience. For example, if a participant had a shared experience with someone else, regardless of the fact that the other person was in their group or not, they were more likely to engage in a positive relationship back at school. This finding is reinforced by MindMatters (2018a) who suggest that resilience develops best in supportive environments that provide opportunities for students to develop, have shared experiences and generalise their skills.

Developing positive relationships with the environment was also an outcome relevant to having shared experiences. For instance, if an individual shared a positive experience with the environment, felt a sense of gratitude through understanding and comparing their privileges of urban life or seeing the beauty in nature, they were more likely to develop respect and care for nature.

Unable to apply skills and assets.

Not all the boys showed the ability to adapt to the program challenges at all times. Distress was the result of the level of difficulty being so far along the spectrum of challenges that some boys perceived the difficulty to be out of reach of their current capabilities. At times boys demonstrated an inability to cope with the challenges that were perceived to exceed their level of competence. This resulted in some boys experiencing misadventure. The outcome was that some participants were evacuated off the program because they were experiencing

psychological issues, including homesickness and high levels of anxiety (Observation Diary: Day 21). In this case, these boys were unable to cope with the program challenges, reverting back to their comfort zone by being removed from the program and taken home.

Examples of boys not coping, but the situation not leading to misadventure also occurred. This was seen during the first week of the program with participants in Group 9 displaying countless examples of not applying coping skills to manage the social and emotional challenges of working together in a small group setting, leading to group conflicts (Observation Diary: Day 1, 2, 3, 4). Although these conflicts were the result of poor coping, opportunities also arose for learning when the program was effectively managed by the leader. These results are in line with findings by Yoshino (2008) who found that participants who did not apply active coping skills and felt a greater sense of perceived stress and threats during participation an outdoor education program, were at less likely to report psychological growth. The results of the current study, taken with the results from Yoshino's (2008) study indicate the importance of the leader's role in tailoring the program challenges to be aimed at the right level of difficulty for optimal arousal and to foster and support individual's development of psychosocial assets (see Figure *5.29*).

Possible outcomes filter.

The last filter in the transactional process of stress appraisal in response to the program challenges is the possible outcomes filter presented in Figure *5.30*. This filter discusses the process of how the actions taken by participants to apply

or not apply skills and assets influenced their responses to the program challenges, which results in individuals experiencing either one of two outcomes; (1) success in adaption to program challenges or, (2) failure to adapt to program challenges. For instance, some boys demonstrated success in adapting to the jump rock challenge, by choosing to engage in the challenge and applying coping strategies, such as chunking to manage their response to the stressors. Whereas, other boys demonstrated a failure to adapt to the same challenge by choosing not to engage in the challenge, as their perceived risk outweighed their perceived competence, causing them to revert back to their comfort zone.

Exploring the interaction of elements that lead to adaption.

To explain the process from the initial stage of when the boys were presented with the program challenges, to the final stage that represents the possible outcomes of either perceived success or failure to adapt to the program challenges; the transactional process of stress appraisals has been separated into layers within concentric circles. The process firstly starts at the individual's 'core' layer (inner circle). The subsequent layers expand out from the inner circle and represent the different layers that impact the individual's possible outcomes in response to the program challenges. The subsequent layers are represented in order as the (a) conditioning layer, (b) feelings layer, (c) choices layer and (d) actions layer. These layers are permeable and build upon and influence one another. At each of the layers, there is an option for participants to continue in the progress to the next layer, or there is an option at each layer for individuals to hit their 'limit line'. If the individual does not have the skills, personal attributes or

support required to continue through the stress appraisal process, the reaction and consequence is that they generally hit their ‘limit line and' retreat back to their comfort zone. To explain this transactional process in detail, the following sections will discuss each of the influencing layers of the process.

The core.

The core inner circle of the process, represents an individual’s state of being, encompassing their core beliefs, current knowledge and skill sets (assets and competencies). The core layer represents an individual’s level of functioning which impacts their psychological, neurobiological and behavioural responses to challenges (Garmezy, 1985; Werner, 1995, 2000; Windle, 2011). The results showed that the following variables within the core layer influenced the student's ability to learn and retain knowledge;

- previous experience,
- psychological/emotional state,
- level of tiredness,
- personality,
- fitness levels, and
- personal skills and capabilities (Observation Diary: 2, 5, 10, 19).

This is supported by a constructivist approach to learning, that suggests participants come to the program with an abundance of prior knowledge, skills and experiences, consequently, affecting their approach to program challenges (Gilbertson et al., 2006, p. 29).

The conditioning layer.

Expanding out from the ‘core’, the next layer represents the ‘conditioning layer’. This layer demonstrates that an individual’s perception and approach to a challenge is influenced by their personal conditioning. Their conditioning is the impact of their environmental microsystems, including peers, family, school, culture and their community (Bronfenbrenner, 1977, 1981). In accordance with Bronfenbrenner's (1977) ecological model, the program process demonstrates the multifaceted interactions between an individual's psychological and social-cultural systems when they are confronted with a challenge and how each of the different layers and factors interacts (see Figure *2.4*).

All individuals have a different ‘core’ and ‘conditioning’ layers, based on personal circumstances. The core and conditioning layers also represent a participant’s comfort zone. This is the area in which an individual feels comfortable, safe and unchallenged (Luckner & Nadler, 1997; Senninger, 2000). Only after the boys were exposed to a stressor or challenge, did the feelings layer come into play in the process.

The feelings layer.

The feelings layer represents the potential psychological state of the participant. In other words, this layer represents how the boys were potentially feeling emotionally and mentally in response to being presented with the program challenges. This layer involves participants distinguishing how they ‘feel’ about the challenging circumstances, in order for them to make a decision about how they will respond. It is important to note that each individual will perceive the

challenge level differently depending upon various factors which make up their core and conditioning layers.

The boys' psychological states were found to affect their ability to apply or learn skills and were influenced by a variety of social, biological, environmental and psychological factors (Friedli, 2009; Herrman et al., 2011). For example, when Reece threw a tantrum because he was angry, frustrated and bored, he was unable to focus on the needs of the group when he was in a leadership role (Group B: Interview 1).

The challenges required the boys to cognitively manage internal emotional and behavioural responses. Depending on the circumstances of the challenges and the individual, the stressors caused a range of feelings and elicited emotional responses, such as fear, anxiety, excitement, anger or frustration. For instance, Isaac's emotional response was crying five times in response to the perceived difficulties (Descriptive Diary: Day 19). This is supported by Csikszentmihalyi (1996) who suggests that an individual may experience a variety of eight different mental states when encountering a challenging situation. These psychological states include anxiety, apathy, arousal, boredom, control, relaxation, worry and flow.

Participants who were able to regulate and apply purposeful control over their emotional responses, behavioural impulses and cognitive processes within the feelings layer, were seen to be demonstrating executive functioning (Bradley, 1990; Lee et al., 2013). For instance, when Jake (Group C: Interview 2) acknowledged that at the start of the program his emotional and behavioural

response to their broken tent would have been feeling '*really angry, frustrated, and screaming'*, whereas, he recognised that his actual responses (e.g., laughing and seeing the positive side to the difficulty) were due to developing resilience and coping skills throughout the program.

Experiencing feelings of 'disequilibrium' caused some of the boy's feelings of fear and uncertainty about how they would cope with the various program challenges they would encounter, causing a momentary internal state of conflict. However, as Gass (1993a, p. 59) suggests this type of eustress provokes healthy levels disequilibrium, and it must be present for change to occur through adventure experiences.

As previously discussed, the level of challenge is critical in the decision-making process. If the individual is feeling over-aroused, they may feel emotions associated with distress. On the other hand, feelings of boredom may be associated with feeling under-aroused. Again, this reinforces the importance of the level of difficulty of challenges being set at an optimal level of arousal (Goldilocks Zone), resulting in eustress.

The choices layer.

Both the thoughts and emotions of participants shaped their learning process. These feelings ultimately impacted their choices and decisions of whether to confront or retreat from the challenge. Based on their feelings, the boys made decisions. This is known as the choices layer. As Figure *5.28* demonstrates, the boys decided one of three responses to the program challenges;

1. engage in the challenge,

2. change the perceived level of risk or challenge, or
3. not to engage in the challenge.

The boy's choices were impacted by a range of different underlying thoughts, beliefs and values, including self-image, self-efficacy, self-talk and their perception of the risk. As discussed, their choices are also influenced by determining whether or not they have sufficient internal and external assets to overcome the difficulty. The choices layer is also influenced by an individual's awareness and conscious decision-making processes, which can also be affected by their goals and intentions.

The actions layer.

Actions and behaviours were typically modified by the choices the boys made. It is at this stage in the transactional process of stress appraisal the boys take action (action layer) based on their decisions through the interactive process of the primary and secondary appraisals. This process of transactional stress appraisal is highlighted in both the model demonstrating the transactional process of stress appraisal in response to program challenges, as well as the application or non-application of skills and assets filter (see Figure *5.29*)(Carver et al., 1989; Lazarus, 1984; Lazarus & Folkman, 1987; Wong et al., 2006).

Once the boys had made the choice to take action, it is in this layer that the boys experienced exposure to the actual challenge. This is the area that required the application of character strengths, resilience attributes, coping skills, and specific actions and behaviours that assisted individuals in the process of adapting to the program challenges (see Figure *5.29*)

The feelings, choices and actions layers often moved individuals from their comfort zone (core and conditioning layer), into the groan and stretch zones where they experience being stretched and challenged beyond levels of comfort, resulting in the potential for personal growth and development of assets and coping skills (Luckner & Nadler, 1997; Senninger, 2000). The growth zone is where participants move from the comfort zone, through the groan and stretch zones, into the growth zone where personal growth occurred (Luckner & Nadler, 1997; Senninger, 2000).

The breakthrough line vs. edge line.

To clarify the boy's transactional process of stress appraisals during 'City to Summit', Figure *5.30* presents the entire process; demonstrating the possible outcomes filter and explaining the concept of the breakthrough line vs. edge line. In Figure *5.30*, the edge of the 'actions layer' is the areas where an individual will either hit their 'edge line' or their 'breakthrough line'. Past the breakthrough line is an outer layer which is broken up into four quadrants (refer to Figure *5.30*). These four quadrants represent the 'possible outcomes'. The top two quadrants represent the area that demonstrates success in adaption to the challenges, while the bottom two quadrants represent failure in adapting to the challenge. These outcomes were largely dependent on the following factors:

1. Level of difficulty of the challenge.
2. The willingness for an individual to engage in the challenge and not be stopped by their limit line, causing them to retreat back to their comfort zone.

3. Whether the individual felt supported by their peers and leaders.
4. Their current state of being (core): knowledge, beliefs and skill sets (competencies and assets).

When a participant was able to draw upon their own skills and assets to confront and overcome the challenge, they generally passed through their ‘breakthrough line’. The ‘breakthrough line’ represents the potential positive consequences which may result in outcomes, such as personal growth, the development of skills and assets, and experiencing the success of desired outcomes. It is at this point where the participant typically experienced a sense of achievement and a sense of adventure.

On the contrary, participants' personal growth may also be hindered by the challenge being too difficult, resulting in individuals hitting the ‘edge line'. The ‘edge line' is where the level of risk and level of difficulty of the challenge exceeds an individual's resilience capacity and levels of competency to overcome the stressor. If individuals pass through their edge line, the outcome may not only be a negative experience but also may result in ‘misadventure' or ‘devastation and disaster'. Most of the time the boys experienced psychological states represented in the top two quadrants of the diagram, where the challenges were either within a comfortable level, or just above manageable and within their ‘Goldilocks Zone’ (see Figure *5.27* and Figure *5.30*).

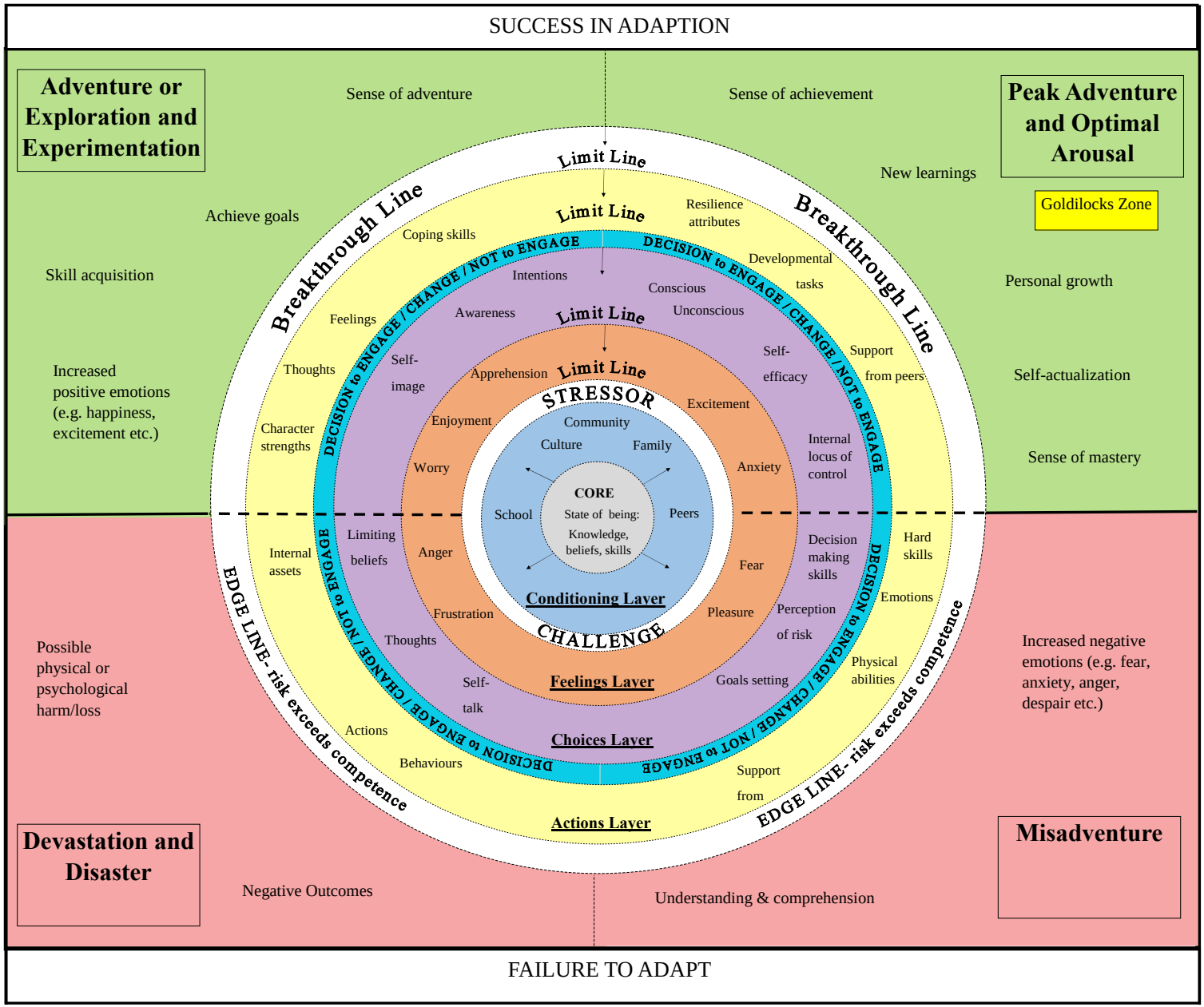


Figure 5.30. Inset 3: Possible outcomes filter and the breakthrough diagram.

Participants who experienced moving through the breakthrough line in the top two quadrants experience positive learning experiences and personal growth (see Figure *5.30* for examples). The process of passing through the breakthrough line resulted in success in adapting to the challenge. This typically occurred when;

- individuals experienced a challenge that was at the appropriate level of difficulty;
- they felt supported by their team and leader,
- the boys received coaching and mentoring from leaders; and
- they processed the experience often with assistance from the group leader (e.g., reflective experience or debrief).

In these cases, they were more likely to pass through the breakthrough line instead of hitting their limit line and turn back to their initial state of being (comfort zone).

This outcome indicates that the process of the boys moving through the breakthrough line may be accelerated by the support and coaching from the leader. For example, when group leaders were observed facilitating challenges and helping participants to reframe their thoughts, such as presenting a 'positive thinking model', the boys were more likely to have positive results and breakthrough their limit lines at each of the levels of the layers (refer to the 'positive thinking model' in Figure *5.3*). In order for the boys to experience psychological states in the top two quadrants of this model, there must be challenges presented that are engaging, are progressively more complex throughout the journey and suited to the individual's needs, aiming for optimal

levels of arousal and a peak experience (see Figure *5.30*). Participants who experience an optimal level of challenge were stretched to learn more, increasing their personal development and become more competent at applying and practising copings skills and developmental assets (see Figure *5.29*). A prime example of such a program challenge was when the boys were presented with challenge which enabled them to ‘choose' their level of engagement was the jump rock challenge. Here the boys utilised a range of coping skills (e.g., positive self-talk, chunking and goal setting), external assets (e.g., support from peers) and internal assets (e.g., mental strength) to help them in successfully adapting to the challenge (Observation Diary: Day 6). The boys commented on this challenge not only being one of the most memorable moments of their experience but also it was a fun type of challenging experience.

Many of the boys hit their ‘limit line' as they perceived the level of difficulty and risk of the challenge too much to manage, therefore retreating back to their comfort zone and choosing not to engage in the challenge. Interestingly, regardless of whether the boys chose to engage in the most difficult level of jumping off the top of the 9m rock, or whether they changed the challenge height to suit their individual needs, the outcome for all boys who engaged with the challenge was the same. All boys indicated that they were proud of themselves for either completing the challenge or overcoming their fears, resulting in them feeling empowered and having a sense of adventure and achievement. This outcome is supported by the results of Shellman’s (2009) study showing that empowerment was highly correlated with factors such, the opportunity to develop and practice skills, the responsibilities participants were given and the help the

participants received from the rest of the group, as well as help from group leaders.

The combination of both this study's findings and the results of Shellman's (2009) study indicate that outdoor education programs should aim for program challenges to be within the 'Goldilocks Zone' to ensure the appropriate level of challenge for individuals, as it is the perceived level of difficulty that is a crucial element to achieve the outcomes of personal growth and the enhancement of psychosocial attributes and coping skills. As the freedom to choose has been found to directly relate to one's ability to experience personal growth (Rohnke, 1989; Wallia, 2008), critical to adaptive dissonance is the need for programming to ensure challenges and choices are individualised to suit the participants' needs and include the freedom for them to choose their level of engagement, thus increasing their personal motivation and empowerment to engage with the challenge. In summary, the 'breakthrough diagram' highlights the significance of intentional program design, where levels of challenge are appropriate for individuals, that are aimed towards achieving optimal levels of arousal, to foster the development and transfer of resilience and coping skills through outdoor education programs.

Transfer of Learning into Different Contexts

The foundation and theories of resilience development relies on the concept of the transference of learning, where the understanding is that the skills, knowledge or behaviours that are developed in one context can then be transferred, drawn upon and applied in various situations and environments

(Beightol et al., 2009; Ewert & Yoshino, 2011; Gillespie & Allen-Craig, 2009). The topic of learning transfer from outdoor education programs into other contexts continues to be one of controversy (Brookes, 2003a; Brown, 2010; Sibthorp, 2003). As Brown (2010) argues, the concept of the transference of learning is highly problematic, and it is difficult to empirically validate beyond controlled experimental settings. It remains a consistent challenge of outdoor education programs to measure the extent of which the learning experiences of participants affect change beyond the immediate context of the outdoor environment (A. J. Martin & Leberman, 2005). The results of this study also indicate that the transference of skills is highly problematic. For instance, it could not be determined if the boys maintained their initial self-reported levels of increased overall resilience, as none of the boys commented on being exposed to specifically challenging opportunities to be able to practice the skills they had developed. As a group, the biggest challenge that they had post-program was either their exams or sporting activities.

Although, after the program, the boys were able to provide some examples of how the psychosocial attributes and coping skills that were developed during the program were maintained and applied in the six months post-program. These included examples of the application of internal assets, such as self-reliance, independence and tolerance that they applied in their everyday lives. Specifically, the boys identified the use of the same five problem-focused coping skills that they used during the program, to help them manage difficulties in their home lives after the program: (1) ‘putting things into perspective, (2) ‘removing oneself from the stressor’, (3) ‘ability to accept (and seek) social support’, (4) 'coming to terms

with difficulties', and (5) 'chunking'. These results indicate that outdoor education programs can have positive influences on the development and transference of resilience attributes.

Immediately after completion of the program, the boys had a 'sense of achievement' and feelings of relief that that had survived 'City to Summit'. Their initial comments indicated that the program needed to be more challenging in order for them to develop more resilience. However, comments in their follow-up interviews that inferred that the level of difficulty of the program challenges should not be changed and that the program challenges should be specifically catered for individuals. These results demonstrate that their initial feelings may have been attributed to groups experiencing 'post-trip' euphoria. This is the time directly after the end of the outdoor education program that can cause participants to feel a sense of euphoria, which has been known to cloud their sense of positive growth and learning that can potentially occur as a result of participation in the program (Ewert & Yoshino, 2008).

In the new school year, the boys tended to forget what they had learnt during the program and slipped back habits of their everyday lives. Without intentional follow-up, bringing attention to what they had learnt or opportunities to practice their resilience and coping skills, it appeared that their learnings dissipated. Opportunities for follow up programs or interventions post-trip which recall the learning experience may assist in the enhancement the learning transfer (D'Amato & Krasny, 2011). Griffiths (2011) also noted that it is important for the student's regular teaching staff to be present on the program to assist in the transferal of learning.

One critical finding of the qualitative data was the participants' inability to think abstractly and draw connections between their learnings within the outdoor education program context, and the context of their school lives. The boys specifically commented that their learnings felt ‘unconscious’. This finding emphasises the importance of not just using self-reflective practices, such as the first generation of facilitation, known as ‘letting the mountains speak for themselves’ (Priest & Gass, 2005). These types of facilitation methods do not appear to support individuals when it comes to conceptualising coping skills and resilience. Outdoor education companies and practitioners can assist in the development of coping skills by explicitly teaching participants a range of problem- and emotion-focused coping skills, and to promote self-awareness of these skills during all three phases of the program design.

When participants are not assisted in the reflection and integration process post-program, there is a high risk that the experience will be viewed as a stand-alone experience, as most participants did in this study. If the intention of the program is to transfer learning from the context of the outdoor education program into other contexts, then the results of this study indicate that intentional program design during the Integration Phase can foster the students' long-term development when:

- Students are supported in debriefing and facilitating activities enhance the process of abstract thinking and making explicit connections between contexts of learning.
- Follow-up experiences which recall their learning experiences during the program.

- Opportunities to be exposed to appropriate challenges in other contexts.
- Opportunities for mastery and to practice the skills developed during the program.
- Goal setting and reflection activities for future personal growth.

Chapter Summary

'City to Summit' used the process of stress inoculation and the concept of 'development-by-challenge' to gradually expose the boys to challenges and stressors throughout their journey. Program challenges provided physical, emotional and social challenges, which required the application of problem-focused (e.g., 'putting things into perspective') and emotion-focused coping skills (e.g., distraction). Along with coping skills, the boys developed internal assets (e.g., self-reliance, mental strength, perseverance) and external assets (e.g., positive relationships with peers, leaders and the natural environment) to help them manage their responses to difficulties during 'City to Summit'. The findings highlight the importance of participants positively experiencing challenging situations, whilst in a supportive learning environment, with both peers and leaders. The length of the program and program design of the Immersion Phase helped provide opportunities for the young people to practice (develop mastery) of these skills and help them to understand their personal responses to stressors, by creating challenges where the participants experienced eustress, rather than distress.

In particular, the boys made a clear link between the concept of the relationship between challenge and fun. Emphasising the importance of

specifically tailored challenges for individual needs, whereby challenges for individuals are aimed at a level for optimal arousal. Based on conceptual understanding of primary appraisals in Lazarus's transactional model of stress and coping Lazarus (1984), outdoor education programs can aim to support psychological growth by creating situations during program implementation which create relevant challenges that generate a perceived level of difficulty, risk or threat; that also support participants to feel they are in a safe, supportive environment, to trial, practice and master coping skills in response to the program challenges. Outdoor education programs should therefore aim to be flexible in design and tailored to meet the specific needs of groups and individuals, with challenges aiming to be within the 'Goldilocks Zone', where optimal arousal and peak adventure is the goal of the participants' experiences.

Post-program, interviewees were able to identify resilience attributes that they applied when confronted with program challenges, such as independence and determination. However, apart from 'putting things into perspective', they were not able to explicitly identify the coping skills they used when confronted with program challenges. The boys were able to talk about what they did when they were challenged, but they were not able to identify the specific types of coping skills they used.

The boys found it difficult to draw connections between the environments of the context in which they developed the skills and the various contexts of other potential applications for the skills (e.g., outdoor education context of learning vs. the application of skills in the context of their school lives). The boys processed experiences using concrete thinking and struggled to make links between the

different contexts of learning which demonstrated their inability to apply abstract thinking. The group leader's role in facilitation, debriefing and reflection activities became crucial in helping the boys to make connections between the different contexts of learning, therefore, highlighting the need for leaders to be explicit in teaching effective coping skills and developmental assets.

Emotional responses to challenges can be controlled and managed through a deeper understanding of an individual's patterns and responses when under stress. These personal understandings can be supported by the reflection and debriefing process facilitated by the group leader. This emphasised the importance of the role of the leader in creating supportive, optimal learning environments that help to foster the transference of learning.

Initially, the participants felt that they had increased their levels of resilience immediately after the program; however, that may have been a result of 'post-trip' euphoria. The boys found it difficult to maintain their learnings six months after the program. These findings challenge the assumption that learning is automatically transferred to other contexts.

Six months post-program, the boys felt their learnings had dissipated. This may have been influenced by their ability or lack of supported opportunities to recall the skills and apply them in other settings. Lastly, the results showing that the boys' learnings were difficult to maintain post-program, highlights the importance of the Integration Phase of the program design, whereby follow-up sessions with education staff, as well as opportunities to be exposed to challenging situations where they can apply the skills developed during the

Immersion Phase of the program, may assist in the transference process post-program.

In summary, the results of the qualitative data indicate that outdoor education programs can provide empowering, supportive environments that can help young people to experience their personal strengths and limitations, develop and practice coping skills and increase their resilience capacity. Ultimately, the program design, with critical input of group leaders, can assist young people with optimal growth, personal well-being, and social development by creating a supportive learning environment that encourages feelings of competence and the ability to relate to peers, through exposure to stress inoculation processes where the challenges are specifically tailored to an individual's needs. These elements help to create feelings of autonomy, sense of achievement and self-reliance over their learning journey. For the transfer of learning to occur in other contexts after the outdoor education program, the program design needs to be targeted, intentional, specific to individual needs and include Frontloading, Immersion and Integration Phases. The next chapter, therefore, moves on to discuss and explain in detail the recommendations for outdoor education program design to foster not only the development of resilience and coping skills throughout the program but also to foster the transference of learning into other contexts after the program.

CHAPTER 6: DISCUSSION AND IMPLICATIONS FOR RESEARCH AND PRACTICE

Great things are done when men and mountains meet;

This is not done by jostling in the street

– William Blake, Notebooks (1793)

Figure 6.1. Celebrating summiting Mt Kosciusko.

Final Discussion

The previous chapter presented the results of the qualitative data and provided discussions about the interrelationships between the themes. Overall, this chapter summarises the findings and provides an analysis of the quantitative and qualitative data to formulate mixed method interpretations, cross-validate the data and confirm the findings. The first part of the chapter overviews the key findings based on the relationships between the quantitative and qualitative results

in relation to the development and transference of resilience and coping skills. The chapter discusses the: (1) importance of understanding the concept of resilience; (2) the importance of development-by-challenge; (3) the importance of making connections between contexts; and (4) the importance of outdoor education programs in schools.

Secondly, this discussion directly addresses each of the research questions and presents recommendations for practice. Thirdly, the chapter presents the strengths, and limitations of the study and discusses the implications for future research and practice. Lastly, the chapter concludes by presenting implications and recommendations for future research, followed by a detailed summary of the chapter.

Importance of Understanding the Concept of Resilience

'Resilience' appears to have become a 'buzzword' in society. This may be influenced by the awareness that one in four young Australian's have reported having a serious mental illness and that suicide is reported as the leading cause of death for young people (Bullot et al.,2017; Mission Australia, 2016)". The awareness of these facts have heightened society's understanding that young people require on-going support to develop and strengthen their resilience capacity (American Psychological Association, 2011; World Health Organization, 2018). However, there is a common misconception in society where people view resilience as a personality trait or simply conceptualising resilience as 'just' the 'ability to bounce back' (American Psychological Association, 2011; Bounce Back, 2017; Netuveli et al., 2008; Spangler et al., 2012; Tugade & Fredrickson,

2004; West, 2012). It was clear in this research that this common understanding of the concept influenced the boys' understandings of resilience. This became evident from the boy's definitions of resilience (see Table 5.9). While the boy's comments varied, their explanations indicated some common understandings about the concept. Most of the boys felt resilience was their ability to 'bounce back' and cope with challenges through keeping a positive mindset and persisting until they had overcome the challenge.

It appears that the boys had a naive understanding of resilience. This is understandable considering the concepts of resilience and coping are complex and multifaceted. As it stands, researchers still find resilience a complex, multidimensional construct that is difficult to define (Allan et al., 2012; Masten, 2012; Miller, 2015; Stokes, 2009). While it is accurate that 'bouncing back' is the outcome of the process of applying coping skills and adapting in response to difficulties, this definition and understanding of resilience is very generalised and simplistic. Consistent with various definitions in the literature (e.g. Bounce Back, 2017; Smith, 2010; West, 2012), the boys' descriptions do not incorporate the understanding that both internal assets and external assets, such as relationships, are critical elements of demonstrating resilience.

Figure *6.2* presents an overview of both the qualitative and quantitative results and demonstrates the interrelationships between the internal and external assets that encompass an individual's resilience capacity, assisting them to flourish in challenging circumstances. As Figure *6.2* demonstrates, both emotion-focused and problem-focused coping skills acted as internal and external assets.

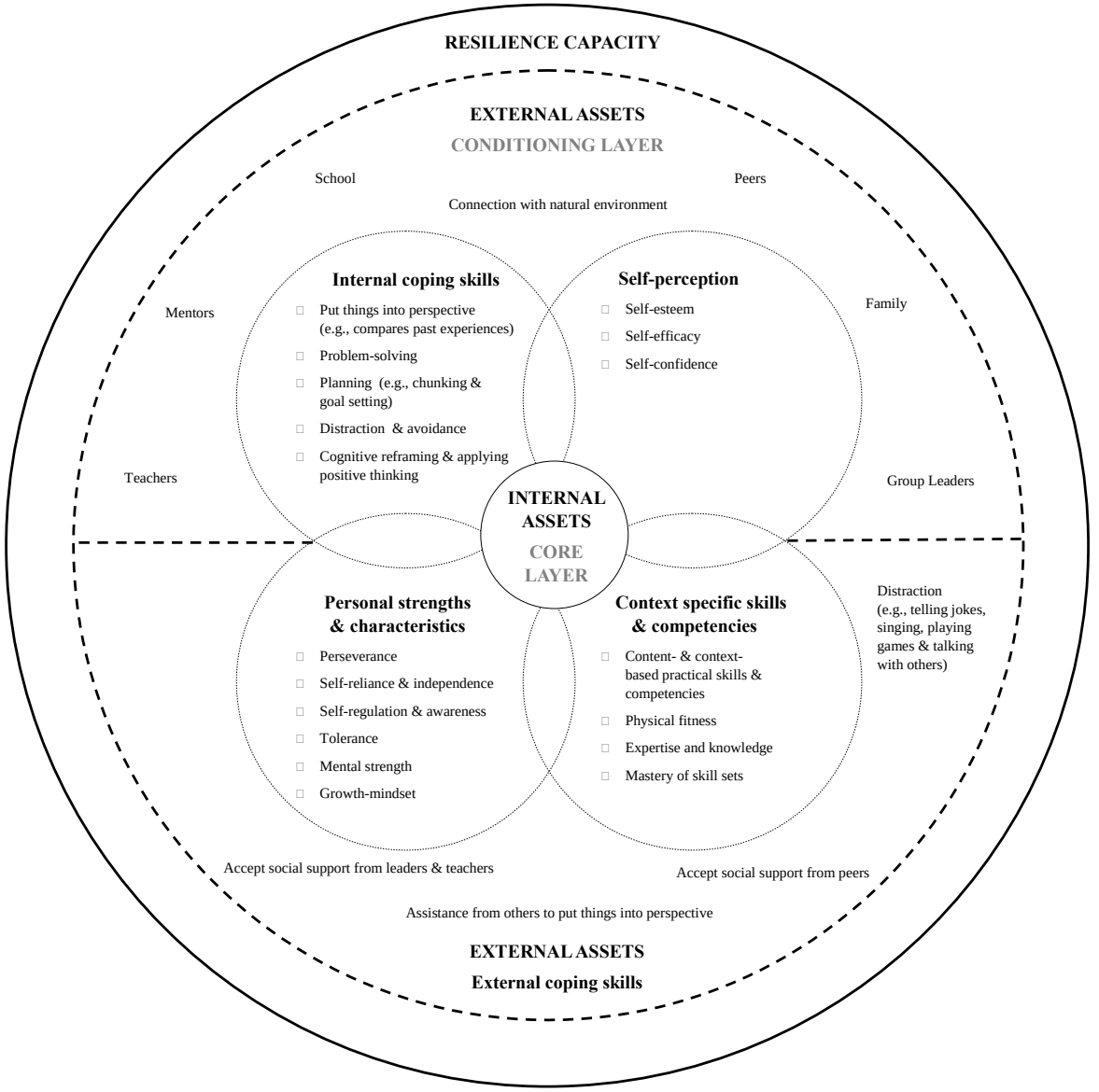


Figure 6.2. Resilience capacity flourishing flower.

Ungar (2008, 2011) highlights that definitions of resilience should be conceptualised within a social-ecological framework that acknowledges the complex interplay of the relationships, processes and protective mechanisms of resilience (see Figure *2.4*). This understanding of resilience is confirmed by the results of this study that demonstrated that an individual's overall resilience capacity is determined by the participants ability to draw upon both their internal assets (e.g., self-reliance and perseverance) and external assets (e.g., supportive relationships with peers and leaders) to assist them in managing their responses to the program challenges (see Figure *6.2*). This reinforces the literature, that resilience is not 'just a personality trait', nor 'just the ability to bounce back', but rather that resilience is the capacity of an individual to utilise both their internal and external supportive systems to positively adapt to difficulties (see Figure *6.2*). In addition, the results provide evidence of the multifaceted interactions between an individual and their relationships with their environments and their ecological systems, such as the micro- and mesosystems as highlighted in Bronfenbrenner's (1977, 1981) social-ecology model of human development systems (refer to Figure *2.4*) (Bronfenbrenner, 1981; Garbarino, 1982; Ungar, 2012).

The concept of resilience and how young people respond to challenging situations is not 'just bouncing back', it is about being able to identify what skills and assets they can apply to help them manage stressors. Resilience development is about individuals becoming more aware of how they respond to stress when confronted with challenges and understanding how they can apply their assets in different contexts when faced with stress.

Understanding the concept of resilience is essential to the way that the boys responded to the presentation of program challenges, how they went about confronting the challenges, as well as the learning they gained through the process of managing their responses to the challenges. The results indicate that when the boys were assisted by the leaders to have a deeper understanding of; (a) the concept of resilience, (b) how it works, (c) what helped them to become more resilient individuals, and (d) understand how resilience functions within themselves; they were more likely to be able to conceptualise the association between contexts of learning.

By being explicit in teaching and breaking down the coping skills and assets required to increase an individual's resilience capacity (refer to Figure *6.2*), practitioners may assist the participants in understanding the complexity of resilience, which may be more effective than focusing on developing resilience as an overall construct. Consequently, within the space of working with young people, the 'concept of resilience' may not be as useful to measure, but rather a more useful way to analyse and measure resilience may be to measure the internal and external assets and specific coping skills of individuals.

Helping the boys to develop a sense of belongingness through strong, positive, supportive relationships with peers and leaders during 'City to Summit' was crucial to develop resilience. It assisted young people to flourish and also acted as a buffer against developmental disruptions (Norrish et al., 2011; Shonkoff, 2015; Van Ryzin, Gravely, & Roseth, 2009). In addition, the positive social relationships developed during the program appeared to support and

strengthen the development of other assets, such as self-esteem and persistence (Shaffer, 2005). This is consistent with the findings from Jain et al. (2011) who showed that supportive relationships are strong predictors of emotional resilience. Helping the boys to develop a sense of belongingness through strong, positive, supportive relationships with peers and leaders during 'City to Summit' was crucial for developing the boy's resilience capacity. These assets assisted young people to flourish and also to act as a buffer against developmental disruptions (Norrish et al., 2011; Shonkoff, 2015; Van Ryzin et al., 2009).

The results revealed that it was neither 'just the internal assets' or 'just external assets' alone, but rather the individual's ability to draw on the different assets and apply them in various environments and contexts according to the challenge presented. For example, for boys who found the 24-hour solo experience to be highly emotionally challenging it was effective for the boys to draw on their internal assets, such as personal determination, motivation, self-reliance and perseverance to manage their responses to the solo. Whereas, for boys who found being away from home to be highly emotionally challenging, it was effective for the boys to gain support from their peers and leaders to help them manage their feelings of being 'homesick'.

Fostering the development of external assets in young people, such as positive relationships with leaders, peers and family, is more likely to influence developmental pathways of resilience, rather than only focussing on the development of an individual's internal assets (Ungar, 2011). This highlights the importance of programs that focus on developing both internal and external assets,

as this will support and strengthen their ability to cope with difficulties in their home lives (Barrett et al., 2014).

The boys showed that when internal and external assets are strong, there is an increased likelihood that when faced with a difficult situation, they will have more resources to draw upon, resulting in an increased resilience capacity, and therefore demonstrating their psychological flexibility (Fredrickson & Losada, 2005) (see Figure *6.2*). For example, when Jake acknowledged that his emotional responses had improved, from being angry and frustrated at the start of the program, to showing his resilience capacity by moderating his responses to the same stressors later in the program (Group C: Interview 2). The more young people can understand their own responses to stressors under challenging circumstances, the more likely they will experience positive effects in other areas of their lives (Constantine & Derald Wing, 2006).

The results also indicate that the boys required opportunities for personal growth and assistance in developing positive human characteristics and internal assets, such as self-esteem, self-efficacy, purpose, perseverance and existential aloneness, to help them enhance their resilience capacity. For instance, the resilience attribute, perseverance, was drawn upon by the boys most commonly during emotionally challenging situations, such as the solo experience, and during physically challenging situations, such as the mountain biking and hiking steep uphill sections. Despite being discouraged, it was these sorts of challenging situations that required the boys to apply perseverance, and the determination to persist, which led to strengthening many of the boy's resilience capacity during

the course of the program (Wagnild, 2009, 2010; Wagnild & Young, 1993). The quantitative data supports these qualitative results, showing that 40.6% of the boys in the program group increased their scores of Perseverance, while 42% had no change in levels of Perseverance immediately after the program.

Although the qualitative data showed the importance of shared experiences and building supportive relationships with peers and leaders; developing a positive relationship with oneself was also an important element for personal development. During the 24-hour solo experience, the boys came to understand that some challenges in life must be faced alone and it is this understanding, which is an essential component for developing Existential Aloneness (Wagnild, 2009, 2010; Wagnild & Young, 1993). Wagnild (2009, 2010) confirms that Existential Aloneness is about knowing oneself and developing an understanding that as an individual, a person has the ultimate choice in making his or her own decisions and life choices (refer to the 'choices layer' in the 'breakthrough diagram' in Figure *5.30*).

Developmental assets are essential life skills and are not only important for managing mental health, but they also assist young people to cope with adversity, enabling them to actively participate in society at an optimal level of human functioning (Constantine & Derald Wing, 2006). A person's resilience capacity is dependent upon their ability to draw on both internal and external assets, therefore, it may be more constructive to focus on developing and strengthening a young person's repertoire of both internal and external assets, which will expand their resilience capacity and increase their likelihood to

maintain or regain personal well-being in response to stress. By helping young people to build and strengthen developmental assets, we can minimise the risk, likelihood and severity of adverse mental health conditions that may develop during adolescence and early adulthood (Friedli, 2009; Wagnild, 2010).

Importance of Development-by-Challenge

City to Summit's program design used a stress inoculation approach by gradually exposing the boys to challenges over the period of the program (see Appendix W). Supported by other recent studies, the findings of this thesis highlight the effectiveness of outdoor education programs as a catalyst for personal growth and the development of resilience and coping skills through the process of supported, stress inoculation and experiential learning processes (Booth, 2015; Shellman, 2009). The value of stress inoculation is also maintained by Lazarus and Folkman (1984) who acknowledges that stress inoculation is gaining the coping skills, personal understandings and assets to enable and moderate the best ways of coping with stress.

A prime example of the effective application of stress inoculation that was used to build the boys' self-reliance and independence was the gradual exposure to 'solo time' (individual reflection time). The boys were exposed to small amounts of 'solo time' (time alone in the wilderness) each day that increased in time increments throughout the program starting with five to ten minutes and building to hours. This enabled the boys to practice and develop their skills before culminating in a 24-hour challenging solo experience.

The results show that the solo time was instrumental in fostering the development of Self-Reliance, Existential Aloneness, mental toughness and a range of coping skills, such as 'putting things into perspective' and 'coming to terms with difficulties'. For instance, Elliot's comment below demonstrates an understanding of how the solo influenced the development of existential aloneness. His comment reinforces that the solo activity influenced participants to get to know 'oneself' and develop skills to enable them to feel comfortable spending time alone.

> *The solo day was definitely a good test of your independence. Your ability to be a friend with yourself, sort of just be by yourself and be happy with your own company I guess (Group A: Interview 1).*

Developing these life skills is essential for young people to start taking ownership over their decision making and choices, to become independent, develop self-reliance, and advance in developmental tasks that will support them as they transition into adulthood (Kroger, 2004).

Outdoor Education is about students engaging in stressful activities with manageable risk (Priest & Gass, 2018a) and feeling a sense of adventure through experiencing unusual, exciting and stimulating emotions (Brendtro & Strother, 2007). The process of the boys feeling the emotions of a sense of adventure and sense of achievement was caused through the exposure to risk and challenge. These elements were essential to the boys experiencing personal growth. When the boys were pushed beyond their comfort zones and supported to successfully

adapt to the program challenges they had positive learning experiences (see the 'breakthrough diagram' in Figure *5.30*).

The results of this study indicated that participants who were not pushed beyond their comfort zones felt 'cheated' and 'bored'. It was important for the level of challenge to extend participants beyond their comfort zone, as Brodie (Group A: Interview 1) explains *"it's definitely more rewarding when you finish it [a challenge]".* Similarly, Shellman's (2009) study also revealed that a 'hard-earned' sense of achievement was more satisfying to participants. Both these findings emphasise how important it is to have challenges within the 'Goldilocks Zone' that are perceived to be challenging, yet just manageable (see Figure *5.27*) (Csikszentmihalyi, 1990; Yerkes & Dodson, 1908). If program challenges are not made difficult enough, participants are not going to be exposed to adversity and will not be provided with the opportunities to practice initiating the coping skills and psychosocial attributes required to positively adapt to the situation. Without opportunities for adaption development of resilience and coping skills is unlikely to occur.

An individual's resilience capacity is influenced by the individual's core state of being, including their knowledge, beliefs, skills and competencies; and their conditioning layers, through meso-systems, such as school, family, and peers (refer to Figure *6.2* and the 'breakthrough diagram' in Figure *5.30*). Because of their individual differences, some of the boys may have appeared to have a greater resilience capacity compared to other individuals, as they demonstrated successful adaption to certain program challenges. However, their demonstration of adaption

was not necessarily reflective of their resilience capacity, as resilience is demonstrated when a person perceives a challenge to be difficult. For instance, some of the boys who were more physically fit found some of the program challenges easier than other students with lower levels of physical ability, hence, they did not have to draw on the skills and assets that make up their resilience. This example illustrates that the boys 'core' and 'conditioning' helped them to adapt to the situation presented (refer to Figure *5.30*). This highlights how each person interprets the level of challenge differently, depending on their core and conditioning layers. If new coping skills and assets are to be developed, it is important for the level of difficulty to push them beyond levels of comfort, so they are required to draw on their assets.

As discussed in Chapter 5, the results indicate the need for program challenges to be specifically tailored to meet the needs of the group, as well as the individuals within the group. Interestingly, the boys showed a level of understanding that it was difficult to design the program challenges in 'City to Summit' to cater for the specific needs of all individuals, as each person's needs and 'core' are different (refer to the 'core' in the 'breakthrough diagram' in Figure *5.30*). For example, Chris suggests that:

> *If the challenges got too hard, I think it would've broken a lot of kids down (Group B: Interview 2).*

Program constraints make it difficult to cater for individual differences, learning styles and competence levels amongst individuals. However, by aiming to identify individual differences amongst learners during the planning phase of the program,

practitioners can better understand the individual's needs, help to guide their learning process and plan the level of difficulty of program challenges accordingly. The process of ‘group streaming' individuals into physical ability and challenge level groups may be one way of tailoring programs to suit individuals specific physical needs. In addition, by allowing students to actively ‘choose’ their level of challenge and engagement, this may also increase levels of empowerment, willingness to participate and personal growth (Rohnke, 1989; Shellman, 2009; Wallia, 2008).

Facilitated by the leaders, the supportive, trusting environment that developed within each group of boys fostered the development of positive psychosocial attributes and coping skills. For instance, Chris indicates that when the level of difficulty of challenges was hard, he felt the groups worked more as a team, highlighting that individuals were progressing by drawing on external assets, such as the positive, supportive relationships with peers and leaders:

> *Chris: When the challenges were really hard, we worked more as a team then. If it [the challenges and the program] were harder, it would’ve been a lot harder for us mentally to just cope with the whole thing and to wanna actually be there (Group B: Interview 2).*

Importance of Making Connections Between Contexts to Support the Transfer of Learning

The transfer of learning occurred both during the program and after the program. Consistent with the transfer literature (Barkley, 2010), the program data revealed four different factors affected the quality of an individual's ability for learning transfer during and after the program:

1. the similarity and differences between the skills learnt;
2. the individual's skills sets and prior knowledge;
3. the ability to associate and make connections with what they had learnt; and
4. understanding the context of learning in the outdoor education setting.

The group leaders played an important role in assisting the participants to learn and transfer skills during the program through the delivery of the curriculum and the facilitation of experiential learning processes. As outlined by Priest and Gass (2018b), leaders assume various key roles throughout outdoor education programs. For example, the group leaders were observed demonstrating many key roles, including:

- The role of the ‘translator’: Such as when Group 9’s leader facilitated the ‘it makes me mad’ debriefing activity to assist the boys in making connections between their challenges, translating what happened and suggesting how they could improve their behaviours and actions;

- The role of the ‘initiator’: When the leader from Group 9 introduced the use of the ‘positive thinking model’ to help manage the student’s needs (see Figure *5.23*) ;
- The role of the ‘trainer’: For example, when the boys received coaching for practical skills when they were self-guiding rafts during the whitewater rafting section;
- The role of the ‘maintainer’: Such as when Reece (Group B: Interview 1) remarked that the leaders kept their group motivated when they were struggling with the program challenges;
- Assuming an ‘authority’ position: For instance, when the boys in Group 9’s behaviour needed to be addressed at Benambra when they re-entered into an urban resetting from the wilderness setting (Observation Diary: Day 9);
- Taking on the role as a ‘guardian': Such as when Ian (Group 9) was feeling homesick, and the leader managed his emotional well-being (Descriptive Diary: Day 11);
- The role of being the ‘exemplar': Leaders played an integral role as being perceived as a positive role model, mentor and coach to support the transfer of learning (Sibthorp et al., 2011). For example, leaders were observed modelling group expectations of leadership styles, behaviours and practices, such as appropriate ways of how to get the groups attention when a group meeting needed to be held.

The boy's comments indicate that the leader was the most influential factor that contributed to their ability to conceptualise and understand the skills learnt during the program. Sibthorp et al. (2011, p. 120) supports the belief that the leaders assist participants in the reflection and conceptualising process that leads to the transference of skills, suggesting that "it is possible that the intimate relationship between instructors and students in adventure education may act as a catalyst for transfer in ways that other forms of training may not be able to replicate".

Healthy decision-making skills are crucial abilities to learn during adolescence (Piaget, 1964, 1972). Piaget (1972) proposed that during this stage in the cognitive development cycle, young people develop formal operational thinking, which helps the ability for self-reflection and the ability to predict possible outcomes of different types of their own behaviour in applications in various contexts of their lives. However, when the reflection process was left to the boys to initiate, they struggled to make links between contexts of their lives or understand how they could use their leanings to benefit themselves in future challenging circumstances. The boys commented that the learning was more 'unconscious', showing the need for practitioners to initiate the reflection process. For example, Jason's comment below provides an indication of how most of the boys struggled to verbalise how the program impacted them, implying that they were consciously unaware of the learning outcomes. However, they were able to indicate that going through the experience had a significant impact on them:

> *Jason: Yeah. I think if you do [transfer the skills], it's more subconscious as well cause you're not really thinking, "oh, this is linking back to what I learned from 'City to Summit'. It's just something that's become ingrained into you… And so you might not realise it at the time, but it still has an effect on you (Group D: Interview 1).*

Jason's comment also highlights the importance of conscious reflection to support young people in making connections for the transference of skills and conceptual understandings between contexts. These findings emphasise the importance of engaging young people in deep, meaningful, reflective activities that use enquiring conversations that support individuals to develop abstract thinking and allow them to draw connections, conclusions and understandings. This is supported by Priest and Gass (2018b), who suggests that when participants emotions are involved in the experiential learning experience, they are more likely to retain their learning.

Ewert and Yoshino (2011) also supports the findings that group leaders can use debriefing and reflection processes as a supportive tool for resilience development, stating that "providing students with opportunities to experience a sense of perseverance, or a responsibility to others, and then using those experiences during the processing and debriefing sessions could be effective in segueing into the broader concept of personal resilience" (p.46). Therefore, the more group leaders can support learners to make connections and provide useful feedback in response to a learner's efforts in managing their thoughts, behaviours

and actions in response to the stressor, the greater the chance of perceptual and conceptual development and learning to occur (Hammond et al., 2001).

Immediately after the program, interviewees 'predicted and assumed' that the psychosocial attributes, coping skills and learnings would automatically transfer into other contexts of their lives. This assumption that skills will automatically transfer is consistent with the results of Sibthorp's (2003) study on the transference of skills from an outdoor education program into participants home lives. Sibthorp's (2003) findings were also based on students 'perceptions and assumptions' of what skills 'might transfer' rather than collecting follow-up data to see if the life skills did actually transfer into their lives. However, in the interviews six months post-Immersion Phase, only some of the boys were able to indicate skills that did transfer (see Table 6.3); whereas the majority of the boys were unable to provide specific examples of how they applied resilience after the program. This confirms that even though skills may have been developed, they are not necessarily transferred automatically into other contexts.

The lack of transference or the inability to demonstrate the application of skills post-Immersion Phase may have been attributed to a lack of understanding of the concept of resilience or the lack of opportunities to practice and apply their resilience capacity in responses to stressors. For instance, Elliot's comment below emphasises how the boys were unable to understand how the psychosocial attributes and coping skills learnt in the outdoor education setting could also be applied in their 'metropolitan lifestyle':

> *I'm sure the skills we learnt definitely affect your resilience especially in a kind of outdoor environment… And the degree to which it affects you definitely depends on how much you needed to improve your resilience or how much you did struggle [during the program], but…transferring it back into a metropolitan lifestyle, like the centre of Melbourne, there's probably not a whole lot of areas that you can apply those skills in (Group C: Interview 2).*

When the boys were able to comprehend less complex concepts and understand the similarities between applications of the assets, tasks and skills they were applying, it appeared easier for them to make the connection with how they may apply the attributes and skills in another context (e.g., perseverance, self-reliance and determination). For example, Conrad from Group 9 makes the comparison, *"if I persevere and climb Mount Misery, surely I can persevere and sit the exams for my Year 12 studies" (Descriptive Diary: Day 18).* In this example, he shows an understanding of the concept of perseverance and how it can be used in different challenging situations. In the literature, this type of transfer is known as positive transfer, where the individual makes positive connections and understands how they can integrate their learnings (Svinicki, 2004). There were countless examples of how the boys experienced 'specific transfer' of skills during the program from day to day, such as near-transfer tasks that involved tasks that are highly similar (e.g., learning how to put up a group tarp and transferring the same skills for setting up the personal shelter for the 24-hour solo) (Priest & Gass, 2018a).

In relation to positive transfer, the leader played a key role in facilitating positive transfer through the use of experiential learning, whereby the leader supported the learner through metacognition, and construction of knowledge (Svinicki, 2004). An example of this type of transfer was seen when group leaders used metaphors to assist the boys to make the link or connection between different situations (Priest & Gass, 2018a). This occurred when Lachlan's (Group C: interview 1) leader used the metaphor that *"it only takes one drop of poison to poison a well"*, to help the boys make the connection that it only takes one person in a group to have a negative attitude or mindset for the entire group to be affected.

When the boys were able to establish an understanding of how applying their assets can help them manage difficulties, they were able to articulate how they could apply these skills to different contexts. This process of connection was greatly assisted by the group leader, through the debriefing and reflective processes. However, when the boys didn't understand the concepts, they often struggled to make links between the application and transfer of skills into different contexts. In the literature, this type of transfer known as non-specific transfer (far transfer) where there is a potential for the learnings and principles to be interchangeable between contexts (Priest & Gass, 2018a). Specifically, for concepts and skills that involved 'non-specific transfer' (e.g., the concept of resilience) to be understood and transferred between different contexts, the learning and connections needed to be explicitly pointed out to participants.

In addition, the participant's perceptions reflect the view that building resilience is related to the skills specific to the context in which they were developed. Without the assistance of the leaders to help them to make connections between contexts, they were unable to understand or conceptualise how the strengthening and development of assets could be used to help them to manage other challenges in their home life. This emphasises that awareness and conceptualisation of learning and personal growth are essential for young people (Grümme, 2011, p. 114) and are critical factors in assisting young people to make the connections, develop their ability to think abstractly and improve their self-awareness and reflection skills.

Importance of Outdoor Education Programs in Schools

The interviewees commonly stated that they felt they have been 'spoon fed' at home, which may have diminished their opportunities to develop psychosocial attributes, developmental tasks and coping skills that are essential life skills required for transitioning into adulthood (e.g., self- reliance, independence, planning). Instead of 'wrapping kids in cotton wool' by not exposing them to challenges and opportunities to develop independence or allowing for the development of healthy decision making around risk, young people need the freedom to confront difficulties (Coulson, 2017). The findings of this study show that outdoor education interventions that are compulsory within the school curriculum can foster the development of resilience, developmental assets and coping skills through participation in tailored programs that provide opportunities for:

1. Exposure to challenge, risk and adventure, which invites participants to practice internal assets, such as perseverance and independence.
2. Participants to push themselves and test their personal capabilities, strengths and weaknesses.
3. Practising the application of developmental assets, including effective coping skills.
4. Reflection and refinement of coping skills and assets.

While previous research reports that approximately 40% of young people in Australia have good to high levels of resilience and emotional well-being (Resilient Youth Australia cited in Coulson, 2017), contrasting research outlines that a fifth of young people in Australian are experiencing very high levels of psychological distress (Lawrence et al., 2015), and that one in four young people have a serious mental illness and require the support the develop the coping skills required to manage difficulties (Bullot et al., 2017; Mission Australia, 2016). As young people spend most of their time at an educational institution, schools and education providers have the opportunity to create a supportive school network for young people, which focuses on the implementation of outdoor education programs that allow students to strengthen assets, create meaningful peer relationships and take ownership of their own social involvement (Department of Education Victoria, 1999).

Schools need to be aware of the current youth needs and support them in learning coping skills with the aim of young people flourishing, thriving and contribute positively to society. For instance, as Dalton, Fawcett, and West-

Burnham (2001) discuss, innovation is necessary for best practice in schools in the 21st century. This means that schools should be focusing on implementing programs that foster challenge, courage and creativity throughout the curriculum (Dalton et al., 2001). On the whole, young people need more exposure to life experiences that provide the opportunity to develop the relevant problem-focused and emotion-focused coping skills required to help them respond to the challenges of the information age. Developing these skills and assets increases the likelihood of effectively managing stressors in other contexts of their lives as them transition into adulthood (Coulson, 2017; Marano, 2008; Schiffrin et al., 2013).

Programs, such as 'City to Summit, can provide a platform for young people develop their resilience capacity by; (a) explicitly being taught a range of coping skills; (b) providing opportunities to apply and practice a range of problem and emotion-focused coping skills; (c) exposing the participant to challenges aimed at a level of difficulty to induce optimal arousal; (d) helping them to learn how to manage their responses to stress; and (e) providing guidance and support for self-reflection and growth.

Addressing the Research Questions

The overarching aim of this research was to investigate if resilience is context specific. The four specific research questions have been discussed and addressed throughout this thesis. The following sections provide a summary response to directly answer the research questions relative to the relationships between the quantitative and qualitative results.

Research Question 1:

Which attributes of resilience and coping are enhanced through participation in an extended secondary school outdoor education program?

The Principal of Yarra College (2012) stated that primary program aims and outcomes for ‘City to Summit' was to; (a) present the boys with challenges; (b) build leadership skills; (c) build perseverance, resilience and teamwork skills; and (d) promote an appreciation of the importance of the natural world. As demonstrated by both the quantitative and qualitative results, the aims were clearly achieved, with participants reporting increases in their resilience and developmental assets, including a range of coping skills immediately after the Immersion Phase of the program (see Figure *6.2*). These results are consistent with other studies that also found significant changes in resilience scores (e.g., Neill & Dias, 2001; Shellman, 2009; Davidson, 2016) and coping skills (e.g., Booth, 2015; Yoshino, 2008) post-participation in an outdoor education program.

Both the qualitative and quantitative data identified increases and positive change in overall resilience for the program group immediately after the program. In all cases, the program group reported a higher percentage increase in resilience scores, with an increase in resilience attributes after participation in ‘City to Summit’ compared to the control group. The reported increases in the program groups overall resilience is supported by Booth (2015) who also found that over half of the 14 interviewees from the qualitative results, revealed a positive change in resilience and that on average, the quantitative data showed a small positive

increase in resilience. However, while Booth's (2015) study found that resilience levels of participants increased at Time 2 (M = 3.56), it is important to note that participants were considered to be moderately resilient at Time 1 (M = 3.42). This is similar to the results of the current study which also found that the program group (*M* = 136) and the control group (*M* = 135.29) were moderately resilient at T1.

The resilience attributes that were found to be statistically significant were also identified within the qualitative data. Specifically, Table 6.1 presents the connections between the data sets demonstrating that both the quantitative data and qualitative findings identified positive changes in resilience attributes. The researcher observations of the program also supported these comparisons.

Table 6.1

Quantitative and qualitative results comparisons of resilience attributes

Quantitative Results	Qualitative Results
Attributes that strengthened with statistical significance	*Attributes that were identified as strengthened through the interviews and observation data*
Overall resilience	Overall resilience
Perseverance	Determination (perseverance & persistence)
Existential aloneness	Self-reliance and independence
Purposeful life	□ Development of relationships with peers and leaders □ Appreciation of relationships with family members □ Appreciation of and connection with technology

The coping skills identified by the boys, involved the effort they took, both behaviourally and cognitively to help them to master, tolerate, reduce, or minimise stressful circumstances during ‘City to Summit'. Table 6.2 provides a comparison of the two significant problem-focused coping skills that were identified during Phase I and the seven problem-focused and two emotion-focused coping skills that were identified in Phase II and Phase III. As Table 6.2 highlights, the results of the quantitative results are supported by the qualitative findings. While the interviewees emphasised the use of two emotion-focused coping strategies during the program, the qualitative results six months post-program saw no transfer of emotion-focused coping skills. Interestingly, this is consistent with the quantitative data that revealed no significant increases recorded in emotion-focused coping skills during the Immersion Phase.

Apart from ‘chunking', all the coping skills identified by the boys during the program could be classified to be a form of ‘active coping', which is problem-focused coping skill. Chunking is a type of planning, which involved the boys breaking the challenge down into smaller, more manageable chunks. The use of chunking was observed on a regular basis throughout the program and is supported by the quantitative data in which the program group showed a clear increase in planning skills (42.4%). These findings are consistent with Yoshino (2008) who determined that social support and problem-focused coping were the most effective type of coping utilised by participants when faced with stress in an outdoor education context.

Table 6.2

Quantitative and qualitative results comparisons of coping skills

Quantitative Results	**Qualitative Results**
Coping skills that strengthened with statistical significance	*Coping skills that were identified as strengthened through the interviews and observation data*
Problem-focused Coping Skills	
Active Coping	Putting Things into Perspective
	Removing Oneself from the Stressor
	Ability to Accept Social Support
	Addressing the Issue
	Coming to Terms with Difficulties
	Cognitive Reframing and Applying Positive Thinking
Planning	Chunking
Emotion-focused Coping	
	Distraction
	Avoidance

Research Question 2:

If attributes were enhanced, what supported and fostered the development of these resilience attributes and coping skills?

The program design during the Immersion Phase followed a similar process of learning to Walsh and Golins' (1976) widely accepted Outward Bound Process model. This process involves the learner being placed into a unique physical and social environment. The learner is given a set of problem-solving tasks, that can create a state of cognitive dissonance, which leads the learner to

explore ways to manage the situation. The goal is to increase the students' mastery or competence and support the learner to reorganise and conceptualise the new understanding that has come from the experience (Walsh & Golins, 1976). This programming process had an overarching influence on the boy's personal development by providing a platform for participants to be exposed to eustress in a supportive environment, thus presenting opportunities to develop their psychosocial attributes and coping skills.

The program stressors that challenged the participants emotionally, physically and socially were critical components of the Immersion Phase (Ewert, 1989). The stressors and program challenges played a vital role in enhancing resilience. Stress is an essential element for an individual to develop and demonstrate their adaptive capacity, as their strengths and limitations only become apparent in the face of difficulty (Booth, 2015; Meichenbaum, 2017b; Rutter, 1993).

The application of a program design that was grounded in stress inoculation and experiential learning approaches to foster development-by-challenge, produced evidence that the program assisted the participants to:

- gain knowledge about themselves and how they respond to challenging situations;
- become familiar to stressful circumstances;
- learn psychological skills that can aid in the process of adaption;
- practice decision-making skills when under stress; and

- build confidence in their personal capabilities to manage themselves when in challenging situations.

Using ‘challenge by choice’ was essential in motivating, empowering and engaging the boys in the development-by-challenge process. When the level of challenge was within the ‘Goldilocks Zone’, that point where challenges were perceived to be ‘just manageable’, the students were seen to apply effective and relevant coping strategies, which helped them manage their responses to the stressors. Their effectiveness in adaption to the stressors resulted in the boys feeling a sense of achievement, which influenced gaining a positive sense of agency, self-esteem, self-confidence and self-efficacy of participants.

The results emphasise the significance of exposure to personally challenging experiences (e.g., 24-hour solo), as well as the importance of the reflection and debriefing process facilitated by the leader. Support for this finding is provided by Shellman (2009) who also found that debriefs, the solo experience and participant engagement, during an outdoor education program, were most highly correlated with resilience. In addition, Shellman’s (2009) study identified that lessons from instructors, the debriefs and a personal, challenging event were most highly corrected with increases in empowerment of participants.

The data shows that the group leaders were instrumental in creating a supportive, collaborative environment for young people to thrive and feel safe during the program. Through the debriefing sessions facilitated by the leaders, participants developed their metacognitive skills by focussing the process of self-awareness, where they became more attuned to of their thoughts and behavioural

responses to challenging situations. This increase in awareness can affect the participant's personal growth by enabling them to manage their own learning. The group leaders who combined both experiential learning practices, along with information assimilation information appeared to strengthen the learning for participants (Piaget, 1964; Priest & Gass, 2018b).

Immersion in the natural environment not only provided the platform for participants to experience adventure, challenge and risk in a unique physical and social environment, but also it provided many other benefits, such as participants feeling the restorative healing effects of nature and experiencing less distractions that have become the norm of urban life in western cultures (e.g., technology, noises from the hustle and bustle). The boys emphasised that removing technology and not having other distractions, they were forced to engage with one another, helping them to connect with their peers and forge deeper relationships.

The length of the 'City to Summit', obligated the boys to spend a consistent and extended period with the same small group of people. Being in this situation provided countless opportunities to undertake shared experiences, support one another through difficulties, experience the challenges of group development processes and develop trusting relationships.

This extended time also fostered the development of peer to peer and peer to leader relationships. The results indicated that it took time for groups to develop trust over the course of the program. The more the group shared new experiences together, the more levels of trust increased between peers and leaders, which increased the likelihood for people to share feelings and be vulnerable in

group debriefs. Program challenges that required a team effort, communication and trust also helped to build stronger peer to peer relationships.

Research Question 3:

> *If attributes were enhanced, what attributes of resilience and coping were transferred and applied in contexts other than an outdoor education setting?*

It could not be determined if the boys maintained their initial self-reported levels of increased overall resilience, as the as none of the boys reported having opportunities to demonstrate their resilience capacity in the six months after the Immersion Phase of the program. This observation highlights the need for the Integration Phase to include post-program follow-up activities and opportunities to continue to practice and apply psychosocial attributes and coping skills in supportive, challenging environments.

The results of the post-program interviews emphasised a range of resilience attributes and coping skills that had developed immediately after the program. Assets and coping skills appeared to transfer in some cases, but this was not consistent across all participants. Table 6.3 provides a summary of the psychosocial attributes that some of the boys reported as being transferred and applied in other contexts post- Immersion Phase.

Table 6.3

Psychosocial attributes that were transferred post-Immersion Phase

Problem-focused coping skills	Emotion-focused coping skills	Internal assets	External assets
putting things into perspective		self-reliance	positive relationships with their peers
removing oneself from the stressor		independence	positive relationship with the natural environment
ability to accept (and seek) social support		tolerance	
coming to terms with difficulties chunking			

As Table 6.3 highlights, there were no reports of emotion-focused coping skills being transferred post-program. In addition to these skills and assets, one-third of the boys reported feeling an appreciation of their family members in the six months post-Immersion Phase. However, the other two-thirds of the boys commented on how difficult it was to maintain these initial feelings of appreciation of their family members six months after the program.

Research Question 4:

How can resilience and coping skills be best developed and transferred into other contexts of learning?

The following provides a summary of the essential elements that best supported the development of resilience and coping skills which are discussed in detail in response to Research Question 2:

- Intentional program design that incorporates a Frontloading Phase, Immersion Phase and Integration Phase.
- Stress inoculation approach that uses gradual and increasing exposure to stressors.
- Program challenges set within the ‘Goldilocks Zone' where the risk does not exceed the competence of participants.
- Setting up a supportive, trusting and collaborative learning environment in a small group setting.
- Engaging young people in deep reflective practice through experiential learning practices that involve meaningful, enquiring conversations.
- Group leaders supporting the participants to make connections and conceptualise key concepts.
- Individually challenging experiences, such as the 24-hour solo.
- Providing participants with opportunities to choose their level of challenge engagement to suit their individual needs.
- An extended program length that allows for practice and refinement of skills.
- Removal or limited use of technology.

The most critical factor in the transference of skills and assets post-program was the boys’ ability to conceptualise and understand the complexities

and concepts of resilience and coping. The leader was the most influential factor in assisting participants to transfer learning between contexts, through helping the participants to draw connections between what they already knew or understood, and new information. Through the experiential learning and reflection processes, the leaders provided guidance on how to either consolidate learning through further practice and action and provided suggestions of how the boys could manage their responses to the stressors.

To increase the likelihood of the transference of the skills and assets developed during the program, it was essential for the students to be supported by staff to engage in abstract thinking and conceptual understandings of their learnings to understand how the concepts and skills they learn during 'City to Summit' can be useful other contexts. This is supported by researchers who suggest that for transference and application of resilience attributes to occur; the learning needs to be reflected on in the broader context of their lives (e.g., Anderson, P., 2008; Brookes, 2003a, 2003b).

The Integration Phase, also known as post-activity outdoor education was a fundamental element in supporting the transference of skills and assets across settings. This element is critical for supporting participants to (a) make sense of what they have learnt on the program; and (b) integrate their learning and skills from the program and transfer these skills to be able to apply in other contexts of their everyday lives. The phase also provides opportunities for self-reflection, to practice skills, receive feedback and allow for post-program follow-up.

Is Resilience Context Specific?

The results of this study are consistent with the literature which identifies three environments can affect an individual's ability to develop resilience (Bronfenbrenner, 1977; Coulson, 2017; Garmezy, 1985; Werner, 1995, 2000; Windle, 2011). The first environment was the internal environment. This is the personal understanding about ourselves and involves an individual's ability to utilise their internal assets. The boys' internal environments were affected by self-awareness, thinking, cognitive processes, behaviours, feelings, emotions and actions (see the layers in the 'breakthrough diagram' in Figure *5.30*). The second environment was each boy's relationship with the people that surrounded him. The quality and strength of the external assets relied on the strength of relationships with their peers, leaders and family members (Benard, 2004; Hanson & Kim, 2007; Olsson et al., 2003). The third environment influencing the development of resilience was the systems surrounding an individual in their broader environments, such as, fellow students in the same Year level, the wider school community and the natural environment (see Figure *2.4*) (Bronfenbrenner, 1977, 1981; Garmezy, 1985; Werner, 1995, 2000; Windle, 2011).

The combination of the qualitative and quantitative that demonstrates young people can expand their resilience capacity through participation in outdoor education programs (refer to Figure *6.2*), reinforces that by developing these psychosocial attributes, they increase their likelihood to be able to manage and self-regulate their response to stressors. However, it is important to note that positive adaptation may not occur across all domains of a young person's life

(Masten, 2015). Different challenging situations, in different contexts, involve exposure to different stressors. The results indicate that an individual's resilience capacity is dynamic and can change over time. Consequently, individuals may show the ability to adapt in one context at a particular time and struggle to adapt in other contexts at different times of their lives. For instance, an individual may demonstrate a higher resilience capacity with respect to the stressors involved in the program challenges during an outdoor education context, but not be able to demonstrate adaption to other stressors in different environments, highlighting that resilience may be content- and context specific. For instance, challenges in the outdoor education context may require different skill sets, assets and competencies, compared to challenges in other contexts of the boys' lives (e.g., school, home, sporting groups, community groups) (refer to Figure *6.2*). A young person may show adaption and success in overcoming one type of challenge, such as managing the stressors related to hiking up a steep hill, but the same young person may show a failure to adapt to the demands of studying for their final school exams. Therefore, depending on an individual's core and conditioning layers, their skills and assets may be better suited to manage stress in certain environments that require specific skill sets to be able to manage the stress. This highlights the importance of focussing on developing an individual's core and conditioning layers, to expand their resilience capacity and increase their likelihood to be able to cope across contexts (refer to 'core' and conditioning layers' presented in Figure *5.30*).

Through direct personal experiences and by using a stress inoculation approach, participants can be explicitly taught coping skills and can expand and strengthen their psychosocial attributes through exposure to challenges (Passarelli et al., 2010; Scales & Leffert, 2004; Sesma Jr et al., 2003; Vera & Shin, 2006). The more people are inoculated to specific challenges, through gradual repeated exposure to the stressors, the more likely they are to achieve a higher level of mastery. However, it is important to note that a participant can experience repeated exposure to a stressor and not change their response.

In considering the findings of this study, it appears that an individual's resilience capacity is content and context specific to the environment; however, the psychosocial attributes that are strengthened and developed during outdoor education programs can be transferred and applied in other contexts, if the participants are able to conceptualise their learning. When an individual starts to understand concepts of resilience and how these work, they are more likely to be able to replicate the coping skills and assets in other contexts (Schenck & Cruickshank, 2015, p. 83). Therefore, the transference of learning can be supported by helping young people to conceptualise and understand the skills and assets they are developing and by helping them to comprehend how the skills and assets can be applied in different contexts. The results of this study indicate the importance of group leaders to be highly skilled, trained and educated not only in hard skills of adventure activities but, also be a good communicator, active listeners, effective problem-solvers, be knowledgeable about concepts of resilience and understand how to explicitly teach a range of coping skills.

Based on the overall results of this study, it is evident that the program design was the most significant factor that impacted the development and transference of the participant's resilience capacity. Therefore, the following section of this chapter provides recommendations about the program design. These recommendations support the development of resilience attributes and coping skills with the intention of these being transferred to the various contexts of a participants life.

Recommendations for Practice

Adolescents have an increased risk of mental health concerns (Australian Bureau of Statistics, 2008a, 2016). The statistics that one in four young people in Australian's met the criteria for having 'serious mental illnesses' is a grave concern (Bullot et al., 2017; Mission Australia, 2016). These statistics should serve as encouragement for schools to take responsibility and be proactive in explicitly teaching an array of effective coping skills that are relevant to young people living in the digital and information age. When the transference of resilience is the intended learning outcomes for an outdoor education program, philosophically, the program design should be grounded on personal development, as this will promote more effective outcomes for participants (Marsh, 1999a, 1999b).

Program Design to Foster the Development and Transference of Resilience and Coping Skills

If outdoor education programs intend to develop resilience attributes and coping skills to promote mental health and well-being; practitioners can combine preventative, proactive, strength-based approaches that focus on developing positive emotions, explicitly teach effective coping strategies and developmental assets (Seligman & Csikszentmihalyi, 2000). Booth & Neill (2017) agrees that in order for outdoor education programs to be more effective and consistent in achieving positive results in the development of psychological resilience, outdoor education program design and practitioners need to be more diligent in including psychoeducational coping curriculum into program design.

Fundamental, educational and psychological theory about resilience, coping and stress can be 'explicitly' taught to individuals during outdoor education programs that aim to have resilience development and coping skills as a program outcome. Therefore, based on the results of this study discussed in this chapter, it is recommended that the elements of the Resilience Development Program Design (RDPD) that is presented in this section be considered as it provides an effective approach when designing a resilience development intervention in an outdoor education context (see Table 6.4). Comparable to the design of 'City to Summit', the RDPD is presented as a single program design; however, it is comprised of three phases that include various key elements and actions that could be used to design a new program or integrated into a current outdoor education program.

Currently, there appears to be a stigma attached to the terms used around interventions and programs associated with ‘mental health’ or ‘therapy’ (Ballenger-Browning & Johnson, 2010). For this reason, the terms ‘Resilience Development Program Design’ has been applied to help avoid the stigma attached to the traditional approach to mental health treatment and to view outdoor education interventions in positive, proactive terms (Ballenger-Browning & Johnson, 2010).

Consistent with wilderness and adventure therapy frameworks (Kimball & Bacon, 1993; Nadler, 1993; Newes & Bandoroff, 2004), stress inoculation training approaches (Meichenbaum, 2017b) and key elements of journey style outdoor education programs (Hattie et al., 1997; Neill, 2008; Priest & Gass, 2005); the RDPD proposes prerequisites during each phase of program design in an aim to transfer learning to and from the program. The RDPD presented in takes a proactive, preventative stance to mental health and well-being by providing a platform to (a) build developmental assets, (b) increase individuals repertoire of coping strategies, (c) develop an individual’s resilience capacity, and (d) foster the transference of these skills and assets into other contexts.

In line with the phases of ‘City to Summit’ and the phases of stress inoculation training (SIT) outlined in the literature review, the Frontloading Phase can be utilised as the ‘education phase and rehearsal phase’, the Immersion Phase can be utilised as the 'rehearsal phase', ‘application and follow-through’ phase; and the Integration Phase can also be utilised as the ‘application and follow-through’ phase of SIT (Meichenbaum, 2017b, pp. 131-132). During all phases,

practitioners are recommended to use questions that promote personal awareness, cognitive processing and discovery to support learning and conceptualisation during the stress inoculation process (Meichenbaum, 2017b; Novaco, 1977).

In accordance with the design of 'City to Summit', the RDPD incorporates the three phases of program design (Frontloading Phase, Immersion Phase and Integration Phase). The purpose of the RDPD is to provide guidelines to support practitioners in assisting participants to expand their resilience capacity by developing and strengthening their psychosocial attributes and coping skills (refer to the RDPD in Table 6.4). In addition to the guidelines as outlined in Table 6.4 the RDPD can assist participants to develop and transfer their resilience capacity by:

- Teaching specific effective coping skills to help regulate negative emotions and enhance one's control over their physiological responses.
- Teaching cognitive approaches to managing stress and developing adaptive coping strategies, including changing maladaptive beliefs.
- Explicitly educating students the difference between problem-focused coping skills and emotion-focused coping skills, and when to best use them.
- Simplifying key concepts and supporting young people to draw conclusions and make connections based on their prior experiences and what they have come to know.

- Integrating learning back into school and home environments during the Integration Phase through follow-up activities and guided reflection.

These recommendations are not intended to be used for the specific treatment of mental health issues, but rather as a guide for educators and outdoor education companies to use practically, to support program design that fosters the development of resilience, effective coping skills and the transference of these skills into various contexts, therefore, helping young people to flourish and thrive in their everyday lives.

Given the nature of the risks associated with outdoor education programs, prior planning is a vital element of program design. In addition to risk management practices, standard operating procedures and guidelines for the designing and planning of outdoor education programs, the RDPD recommends considering prerequisites during each phase of the program design (see Table 6.4). The following sections expand on the prerequisites provided for each of the program design phases.

Table 6.4

Resilience Development Program Design

Program Design Planning: Key Elements	**Phase 1: Frontloading Phase** ***Pre-activity outdoor education*** Prerequisites	**Phase 2: Immersion Phase** ***The outdoor education program*** Prerequisites	**Phase 3: Integration Phase** ***Post-activity outdoor education*** Prerequisites
Phase length	1 day or more	21 days or longer	1 day or more
Environment	Normal learning environment (e.g., school, Tafe, University)	Intervention occurs in a semi-wilderness, unfamiliar environment	Normal learning environment (e.g., school, Tafe, University)
		Participants are isolated from many or all forms of technology and human impact or development	
Group focus with small to medium size groups	Interaction with the same group	Interaction with the same group	Interaction with the same group
			Interaction with larger cohort of participants during celebration
Stress inoculation and program challenges	Explicit teaching of problem-focused and emotion-focused coping skills	Gradual exposure to a range of mentally, socially and/or physically challenging adventure activities that increase in level of difficulty relevant to the individuals 'core' and 'conditioning layers'	Nurture gradual mastery of coping skills
	Set expectations	High expectations of participants	High expectations of participants
	Education and supported self-awareness activities to understand emotional and behavioural responses	Coaching and mentoring on problem-focused and emotion focused coping skills	Ongoing coaching and mentoring on problem-focused and emotion-focused coping skills
	Provide opportunities for meaningful participation	Provide opportunities for meaningful participation	Provide opportunities for meaningful participation
	Set expectations	Perceived risk, appropriate levels and forms of challenge for participants (physical, emotional, spiritual)	Perceived risk, appropriate levels and forms of challenge for participants (physical, emotional, spiritual)
	Challenge by choice	Challenge by choice	Challenge by choice
	Opportunities to apply and practice coping skills taught during this phase	Opportunities to apply and practice coping skills when exposed to program challenges within Goldilocks Zone	Opportunities to apply and practice coping skills when exposed to new challenges specific to the school context
		Immersion Phase includes challenges within Goldilocks Zone that provide both challenging and fun peak experiences	Integration Phase includes challenges within Goldilocks Zone that provide both challenging and fun peak experiences

Education & Rehearsal | **Rehearsal & Application** | **Application & Follow-through**

Table 6.4 (continued)

Program Design Planning: Key Elements	**Phase 1: Frontloading Phase** *Pre-activity outdoor education* Prerequisites		**Phase 2: Immersion Phase** *The outdoor education program* Prerequisites		**Phase 3: Integration Phase** *Post-activity outdoor education* Prerequisites	
Facilitated reflection and debriefing	Personal reflection and awareness activities of current coping skills		Self-evaluation of behaviours, thoughts, actions, feelings and performance		Self-evaluation of behaviours, thoughts, actions, feelings and performance	
	Personal awareness of existing coping strategies and behavioural observations		Reflect and refine behavioural, practical and cognitive coping skills		Reflect and refine behavioural, practical and cognitive coping skills	
	Self-reflection activities		Self-reflection activities		Follow-up experiences which recall their learning experiences during the program	
	Leaders to provide coaching and mentoring on the application of coping skills and developmental assets		Leaders to provide coaching and mentoring on the application of coping skills and developmental assets		Ongoing coaching and mentoring opportunities	
		Education & Rehearsal	Daily reflection and debrief sessions	**Rehearsal & Application**	Debriefing and facilitating activities that enhance the process of abstract thinking and making explicit connections between contexts	**Application & Follow-through**
Goal setting	Participants establish short-term, intermediate, and long-term personal program and life goals that are behaviourally specifiable		Monitor goals and re-assess if required		Goal setting and reflection activities fo future personal growth	
			Facilitated re-assessment of program daily goals		Structured reflection and re-evaluation goals post-program	
Relationship development: *Trust and team building*	Values and beliefs contracts or activities		There is daily and intense interactions within a small group setting requiring problem-solving and decision-making		Opportunities to connect with group the program (e.g., on a weekly or fortnightly basis)	
	Create a supportive, caring, positive environment		Create a supportive, caring, positive environment		Create a supportive, caring, positive environment	
	Initial trust, teambuilding and initiative activities that require team problem-solving		Adventure activities that require teamwork and trust (e.g. whitewater rafting, hiking)		Group follow-up activities	
Problem-solving tasks and activities	Provision of concrete consequences, real actions and consequences through experiential learning experiences		Provision of concrete consequences, real actions and consequences through experiential learning experiences		Provision of concrete consequences, real actions and consequences through experiential learning experiences	
Solo experiences	Set expectations early		Scheduled daily solo time that builds in length throughput the program		Opportunities for solo time during normal learn-ing contexts	
			Culminating solo experience (ideally 24 hours or longer)			

Program design planning.

Prior preparation of an interventions program design is critical for planning (a) the structure of how the individuals learn, what they will learn and when they will learn it, (b) what types of stressors and program challenges they were exposed to and how they are exposed to them, and (c) the structure of how individuals processed and reflect upon their learnings and experiences. Interventions aiming to foster psychological resilience should incorporate intentional program design that offers "a sequence of graduated mastery experience[s] that enable a child to experience success and build self-efficacy and motivation" (Masten & Reed, 2002, p. 85).

Consistent with the factors that lead to the development of resilience outlined this chapter, the RDPD follows a stress inoculation approach by allowing for smaller challenges to be present at the start of the program and move up the scale to more challenging experiences throughout the program. A prime example of a type of stress inoculation and development-by-challenge is introducing participants to solo time gradually over a period of time. Instead of sending individuals out into the wilderness for 24 hours by themselves without any prior experience, group leaders can intentionally set small blocks of solo time each day, increasing in the amount of time (the stressor) as the program continued, culminating with the 24-hour solo experience. Solo experiences are specifically recommended as part of the program design as it was the most beneficial activity to support self-reliance, independence and provide opportunities to apply a range

of problem-focused and emotion-focused coping strategies without relying on others.

It is essential to provide program challenges where the level of difficulty is relevant to the participants 'core' (e.g., prior, experience, knowledge and skill sets, physical capacity, fitness levels) and 'conditioning layers' (e.g., participants education, previous exposure to outdoors and adventure activities, cultural background, whether they are a minority group, such as youth at risk or they are a majority group, such as a mainstream educational institution) (refer to Figure *5.30*). It is also important to consider at what point in the program the challenges are presented to participants.

Ideally, program design should create relevant challenges that create a perceived risk, threat, or challenge to create a sense of disequilibrium and eustress (see Figure *5.28*) that are within individuals 'Goldilocks Zone' with an aim for participants to have a peak experience (refer to Figure *5.27*). Activities that allow for both individual and shared experiences, group development opportunities, facilitation and reflection early on in the program are favoured.

Walsh & Golins' (1976) suggests that the 'ideal' group size to foster and support learning outcomes consists of 10 participants. However, mainstream outdoor education program group sizes generally range between 6-18 participants. Therefore, to meet the criteria for small or medium-sized groups, it is proposed that groups ideally consist of 10-14 participants (Neill, 2008; Walsh & Golins, 1976).

Phase 1: Frontloading Phase.

The Frontloading Phase is the 'pre-activity' outdoor education phase which is critical for setting expectations, developing group trust, fostering supportive relationships, and initiating self-awareness. This phase in the program design is about adequately frontloading the experience prior to the Immersion Phase.

To support the transference of learning during each phase, it is necessary that programs aims and objectives are fully understood by the participant, where they understand the program's relevance to them as an individual (Cooley et al., 2016; Cooley et al., 2015). During the Frontloading Phase, participants can be supported by helping them to understand and see the value or need for them to engage in the challenge. If young people know in advance what the big concepts of the program are and how these concepts relate to each other conceptually, they are more likely to make sense of the information, be able to remember it and use it more flexibly (Hammond, L., et al., 2001).

The Frontloading Phase can also be used to explicitly educate young people about problem-focused and emotion-focused coping skills that help to focus on the modification, avoidance, and minimisation of the impact of stressors. These recommendations are consistent with Booth (2015, p. 28) who suggests that "program facilitators can actively assist and teach participants about their own coping strategy choices and guide them in making beneficial and productive choices to provide participants the best opportunities to develop resilience".

Through understanding the five psychological attributes of resilience measured in this study (Wagnild, 2009, 2010; Wagnild & Young, 1993), it is clear that there is a direct link to the importance of goal setting before, during and after the Immersion Phase of the program. Considering the results of this study and the definitions of the resilience attributes measured in this study, all attributes highlight the importance of goal setting and self-awareness. Goal setting is therefore an essential element to the growth and development of an individual's psychological resilience and ability to strengthen adaptive coping mechanisms. For example:

- 'Purposeful life' is about understanding your life goals and knowing the steps and actions to work towards achieving them.
- 'Perseverance' is the ability to work towards achieving these goals despite difficulty or challenges.
- 'Equanimity' is the ability to keep a balanced perspective and to moderate our responses to these adversities.
- 'Self-reliance is the ability to understand your personal strengths, weaknesses and capabilities.
- 'Existential aloneness' relates to knowing yourself and being comfortable and confident in your own skin.

In addition, goal setting in the Frontloading Phase needs to be relevant, facilitated. Their goals need to be specific and difficult enough to increase performance or their current state of self-awareness in relation to coping. In addition, it is recommended that practitioners allow students to have input and

control over their goals, personal development and activity selection during outdoor education programs (Cooley et al., 2016; Cooley et al., 2015; R. M. Ryan & Deci, 2000).

Assisting participants to develop goals that are directly related to their personal development has been shown to enhance well-being, resilience, and personal performance (S. Green, Grant, & Rynsaardt, 2007). Evidence shows that pathways to building resilience can be achieved through setting challenging, yet achievable goals (American Psychological Association, 2011; Benard, 1991; Werner & Smith, 2001). Setting clear goals at the before the Immersion Phase can also assist in creating engagement with the program and program challenges, where participants feel a sense of ownership and are committed to their goals and wanting to succeed throughout the program.

Phase 2: Immersion Phase.

Along with the recommended prerequisites of the RDPD presented in Table 6.4), there is an abundance of literature that supports the use of cognitive behaviour modification techniques and somatophysiological coping strategies to aid in managing stress, building resilience, and maintaining mental health and well-being (Antoni et al., 2007; Bennett et al., 2013; Lazarus, 1984; Lillis et al., 2009; Miller, 2015; O'Connell, 2005; Wilson & Baer, 2010). The results of this study indicated the use and benefits of some of these coping strategies (e.g., journaling and positive reframing of thoughts).

The Immersion Phase provides an ideal platform for young people to be taught and have the opportunities practice the following cognitive behaviour

change processes, modification techniques and somatophysiological coping strategies that can be used as tools to manage stress in peoples everyday lives. Therefore, it is recommended that the program design includes the intentional use of coping strategies, such as:

- positive reframing of thoughts,
- journaling,
- mindfulness activities,
- meditation,
- relaxed breathing techniques
- self-monitoring and awareness,
- positive visualisations, and
- affirmations (Lazarus & Folkman, 1984; Meichenbaum, 2017b, pp. 131-132).

Debriefing and reflective sessions guided by the group leader should aim to ‘hold space’ where individuals learn to give and receive supportive, positive, yet constructive feedback from peer to peer and group leader to participant. Opportunities for participants to give group leaders feedback may also increase levels of mutual respect and group trust. However, caution should be taken as feedback that is not given and received in a constructive, positive and supportive manner could undermine efforts and cause conflict amongst team members.

Suitable program design and facilitation will set the tone for students to be able to share experiences with peers and teachers, which will allow for the development of relationships. The more group leaders can support the learners by

providing useful feedback in response to a learner's efforts to manage their thoughts, behaviours and actions with their response to the stressor, the greater the chance of perceptual development and learning to occur (L. D. Hammond et al., 2001). This research shows that by supporting a young person to develop their emotional intelligence and self-awareness, they are more likely to be able to recognise and manage their emotional responses to stressors, solve conflicting situations and apply other resilience attributes, such as perseverance and self-reliance.

Phase 3: Integration Phase.

Generally speaking, it appears that the Integration Phase is what is missing from most 'mainstream' outdoor education program designs in Australia. The Integration Phase is essential for supporting the transference of psychosocial skills and assets into other contexts. This final phase of program design provides the opportunity for participants to:

- Reflect on their goals, learnings and achievements of the program.
- Reset future goals and intentions for their upcoming year based on their learnings.
- Share these goals and intentions with important people in their lives who can assist them by holding them accountable.
- Experience supported, structured follow-up sessions throughout the year.
- Practice skills and be exposed to challenges in different contexts.

In supporting students to build their resilience capacity and explicitly teach them coping skills to manage mental health difficulties and life challenges, it is critical to have support from a positive school community, including parents and families (MindMatters, 2018b). In the follow-up interviews, six months post program, boys in all interview groups agreed that there was not enough emphasis on the culmination and celebration of the program. The boys also emphasised that they would have liked to have connected with their group leaders after the program finished. By celebrating the participants success of achievement with the school community and their families, this type of experience could potentially be used as a ‘rites of passage' acknowledgement where important people in the boys' lives (e.g. family members, teachers, mentors within the community) come together to acknowledge not only the experiences they have had but also how they have developed, grown and changed as a person (Bell, 2003; Dooley-Feldman, 2016; Norris, 2011).

A participant-mentor relationship is similar to the participant-group leader relationship, which appears to occur during outdoor education programs naturally. Although mentoring was not included in program design of ‘City to Summit', the boys highlighted the desire to; (a) connect with their group leaders after the program, (b) connect with their groups after the program, and (c) practice the skills they had learnt during the program. Therefore, for participants to develop mastery and transfer skills and assets learnt during the program, it is recommended that the Integration Phase considers setting up a mentoring protocol. The inclusion of youth mentoring in program design can assist in;

- preventing the emergence or continuation of psychosocial difficulties or problem behaviours;
- promoting positive adjustment through the development of individual competencies; and
- fostering integration with the community through opportunities for involvement (Keller, 2007, p. 27).

To support the facilitation of mentoring relationships during the Integration Phase, rather than face to face interactions, other alternatives for mentoring and feedback may be considered, including peer to peer mentoring, accountability partners or online mentoring through platforms such as Skype, Facebook or GoogleChat Rooms, where participants can be involved in group or individual discussions online.

In summary, the recommendation in the RDPD provides support for schools and practitioners to incorporate resilience and coping building interventions into mainstream outdoor education program designs. Application of the RDPD is recommended when mainstream outdoor education programs want to bridge the gap between their current programming and programs that intentionally aim to not only build skills and assets but also transfer resilience and coping skills across settings. To support the transference of skills, the Integration Phase is vital in assisting participants to conceptualise their learning and support the integration of skills and assets across different contexts of their lives.

The recommendations of the RDPD use proactive mental health promotion and prevention strategies by incorporating psychoeducational curriculum and

explicitly teaching participants an array of effective coping skills. The program design uses strength-based approaches to foster the development of psychosocial attributes and coping skills to assist young people in expanding their resilience capacity, therefore increasing their likelihood to be able to manage and self-regulate their response to stressors in other areas of their lives.

Strengths of the Study

This study is unique in that it used a mixed methods longitudinal design, to investigate the impacts of participation in an extended journey style outdoor education program and its perceived effectiveness on enhancing resilience and coping skills in Australian young people, which is rare in this field of study. The study used empirical testing in Phase I to facilitate critical inquiry, validation of the data and enabled detailed annotations from Phase II and Phase III to support the findings. The collection of the qualitative data provided personal accounts which offered a greater understanding of the quantitative results. Moreover, by combining both quantitative and qualitative analyses, the researcher was able to obtain rich data for analysis which supports the methodological integrity of the study (Onwuegbuzie & Teddlie, 2003).

Research in this field has previously explored and measured both resilience and coping as separate constructs. However, Booth's (2015) research appears to be the first investigation to examine the relationships between both resilience and coping in the outdoor education domain. This study builds upon Booth's (2015) findings and provides a longitudinal data set which primarily

focuses on personal development sustainability and transference of skills six-months after the intervention.

Outdoor education practitioners and field staff can benefit from knowing the findings of this study, that outdoor education programs do have positive significant influences on the development of resilience and coping skills. The real-world applications of the results and implications for future research, and practice provided in this chapter, can be applied in practice by outdoor education practitioners, educators, schools and companies to not only foster the development of resilience and coping skills among young people but also provide the best opportunities for participants to transfer these skills into other contexts of their lives.

Limitations of the Study

While all research is subject to limitations through scope and sampling techniques, there are also limitations relating to data collection. For example, in this study, there was a potential problem with collecting data immediately after completion of the ‘City to Summit', due to ‘post-group euphoria' which is a common occurrence when people complete challenging experiences. Post-group euphoria can be a perplexing problem in the measurement of outdoor education and adventure education outcomes as it may accentuate some responses and muffle others (Ewert, 1989; Hattie et al., 1997; Marsh, Richards, & Barnes, 1986a, 1986b; Sibthorp, 2006). Marsh et al. (1986a) suggests that examining outcomes over the longer-term may reduce this phenomenon as further data is collected as the post-group euphoria subsides. The data collected six months post-program was used to inform the influence of post-group euphoria.

Gender differences in resilience and coping strategies are not explored in this study. In the context of this research, male adolescents aged 14 to 17 years were the participants in both the program and control groups.

There are also issues associated with the social representativeness of both sample groups. The young people sampled in this study all attended a private, single-sex boy's schools in Melbourne. The nature of the schools being private places a socio-economic selection with the boys coming from families who are able to pay the school fees and have an affinity with the school ethos.

Although this research examined self-reported levels of resilience and coping before the program, it did not assess the boys’ current mental health or

psychological states. It is important to reflect on the use of self-report measures in this research, including the possibility that some participants may have under-reported or over-reported their levels of resilience and coping due to varied conceptualisations and understandings of the concepts, as well as taking into account the participants ability to accurately evaluate, consider and report their response to the questionnaires.

The measures used were applicable in this study, however, both measures had limited intensive psychometric analysis. These measures can continue to be improved through new phases of psychometric analysis undertaken in future research.

Questions in the Resilience Scale are positively worded which could be viewed as providing 'leading questions', which can lead to a more 'socially desirable' response from the participants. In addition, the interviewees of the qualitative data may have been influenced by peers within the small group interviews, causing them to answer questions in a socially desirable manner, rather than responding to the questions with accurate, truthful responses.

The small sample size warrants consideration under the current study design. Even though (Hinkle et al., 2003) suggests that a total of 42 participants is required to achieve a large effect where $d = 1.0$, $\alpha = .05$, and power = .75, which was the final number of the control group, larger sample sizes may produce more conclusive and justifiable results. It is imperative to note that this study did not measure the actual individual stressors that participants may have experienced during 'City to Summit'. It should also be noted that the relatively small sample

sizes and gender specificity; selective memory or lack of memory; or the ability or inability to recall past experiences over time; may cause limits on the generalisability of the outcomes of the qualitative data.

The complex and dynamic variables that are specific to outdoor education programs, such as the environment, program location, weather, group leader influences and impacts of the social group, cannot always be controlled. Consequently, these variables may have impacted the results of the study.

The use of small group, semi-structured interviews may influence participants to be reluctant to share their view with others in the group. However, these types of qualitative data assessments are suitable for an adolescent sample group**.**

Implications and Recommendations for Future Research

Several methodological concerns were identified after collection of the quantitative data sets in Phase I. For instance; it would have been beneficial to have a longitudinal study that supported the qualitative data by using the same measures to empirically examine the program group and the control group six months prior to starting the 'City to Summit' and six months post completion. This follow-up data set could have been collected at the same time as the semi-structured interviews in the post-data collection set.

While this study used a qualitative longitudinal design and showed that resilience is enhanced by participation in extended journey style outdoor education programs immediately after participation, future research should aim to

include longitudinal designs that also include empirical measures to examine participants resilience capacity after a period of time, to examine whether initial increases in levels of resilience and coping skills show lasting results in other contexts. It is also recommended that future research using the Resilience Scale should consider adapting the tool by potentially including some negatively worded questions to ameliorate the effects of having all questions being positively worded. In addition, a Confirmatory Factory Analysis should be the test used to further investigate the validity of the factor structure of the Brief COPE Scale in future research.

This study did not take into account or measure participants' prior experiences in the context of exposure to challenge and stressors during outdoor education programs. Therefore, it is recommended that future research in this field address participants' prior experiences, as well as examining what specific types of challenges and what the specific level of difficulty of the challenges positively influences the participants and leads to positive outcomes, such as expanding and strengthening an individual's resilience capacity.

Additional research is warranted to determine whether gender difference impacts the development of resilience and coping after participation in extended journey style outdoor education programs. To enable a well-rounded view, future studies should examine various genders and groups from various socio-economic backgrounds, as well as being sourced from different cultures and counties.

Generally speaking, most mainstream outdoor education programs in Victoria name the 'development of resilience' as a program outcome. This is

problematic as it infers that all outdoor education programs, even the ones without intentional program design, do enhance resilience. If outdoor education practitioners and companies continue to claim that their programs develop resilience and coping skills in their participants, then there is a need for new teaching models and program designs in outdoor education. These new teaching models need to be grounded in research, able to be tested so as to determine validity, be simple to understand for practitioners, straight forward to use while including new ways of thinking.

As learning takes place in the brain, future research is warranted to further investigate the neurobiological processes that impact our ability to learn, retain information and skills learnt in outdoor education contexts. New and current research in psychoeducation, neuroeducation (Schenck & Cruickshank, 2015, p. 83), brain resilience (Allan et al., 2012) and neuroplasticity may help to inform best practices and educational models that can be applied in outdoor education programs.

There is a need for future research to investigate how to implement and integrate psychoeducational curriculum about developmental assets, coping strategies and stress in outdoor education programs which aim to bolster psychological resilience. The recommended Resilience Development Program Design (RDPD) presented in this chapter is based on research, extensive theoretical underpinnings and findings of this study. The intent is that the RDPD will lead to new research, new questioning and start further conversions about how best to support young people in not only developing these essential life skills

but also support them in transferring the skills in all contexts of their lives. It is essential for the proposed RDPD to be trialled and tested in a range of environments, with varying age groups, genders and demographics. It is advocated that the RDPD will evolve with testing and research, and should help to inform ‘best practices' in building resilience and coping skills during outdoor education programs.

Chapter Summary

This thesis strived to strengthen the research that supports the belief that participation in outdoor education programs enhances resilience, resilience attributes and coping skills, and to understand what practices support the development and transference of these psychosocial attributes and skills into other contexts. Given the self-reported increases in resilience and internal and external assets which includes coping skills; combined with the findings of the data collected from the Resilience Scale and the Brief COPE questionnaire's, the findings support the notion that outdoor education is a viable tool to for the development of psychosocial attributes.

The complex, multidimensional constructs of resilience and coping made untangling the relationships of the data difficult. Subsequently, this research confirmed the importance of using a mixed method approach to explore the themes revealed across the data sets. For instance, the results of both the qualitative and quantitative data emphasise that an individual’s overall resilience capacity can be strengthened and enhanced by the development of the internal and

external assets and copings skills (refer to the ‘resilience capacity flourishing flower’ in Figure *6.2*). As resilience can only be demonstrated in times of challenge or adversity, it appears the development of these skills also occurs when participants are exposed to risk, challenges and adventure in an unfamiliar environment. Providing experiences of this type in a supported environment acts as a type of stress inoculation, through exposure to program challenges. Stress inoculation and experiential learning approaches used in the three-phase program design also created opportunities for individuals and groups to be exposed to different types and levels of challenges and provided an ideal platform for relationship development, reflection and personal growth to occur.

Furthermore, the results of this study demonstrate that providing opportunities for participants to take meaningful ownership over their engagement in challenges that are within the ‘Goldilocks Zone’, create conditions for both optimal arousal and peak adventure experiences at an individual level. The extended program length allowed time for the boys to practice and develop their skills in challenging situations while being in a supportive environment with peers and leaders. The combination of these factors resulted in participants feeling a sense of achievement, empowerment and higher levels of motivation to participate in future challenges. These findings, along with findings from current research (e.g., Booth, 20015; Shellman, 2009) indicate that outdoor education programs that provide the opportunity to experience achievement through exposure to ‘just manageable' program challenges is a critical element in improving participants resilience capacity and coping skills.

Leaders assumed various critical roles throughout the program to support the participants' growth and development. For instance, the results of this study demonstrate the importance and impact the group leaders had in the refection and debriefing process. When the participants were guided through the experiential learning processes and supported to conceptualise and understand key concepts of resilience; they were more likely to transfer the skills and assets developed during the program into other contexts of their lives. However, while the results of this study provide supporting evidence that some resilience attributes and coping skills developed can be developed, transferred and applied in other contexts of their lives, there is little evidence to support the long-term effects of these results.

The reported transference of skills and assets was more likely to occur when the concept, skill or asset involved specific transfer; however, when concepts and knowledge involved skills and tasks that involved non-specific transfer (far transfer), the boys struggled to make connections between the contexts of learning. Therefore, assisting participants to reflect on their experiences, supporting them to think abstractly, and helping them to understand how they can apply the skills learnt during the program into other domains of their lives, were critical roles that the leaders assumed during the program (e.g., the leader engaging in the role of the 'translator').

The findings of this study indicated that if an individual's contextual and conceptual understanding of resilience is limited, resilience is perceived to be content- and context-specific to the setting in which it is developed, unless the participants were guided to make clear connections between the different contexts

of learning and application through supported debriefing and reflection processes. Because the boys lacked an understanding of some of the more complex concepts (e.g., the overall concept of resilience) and because the various environments 'appeared' to be so different to the boys, it may be useful to simplify the concepts associated with understanding resilience, so that the young people can connect with, and understand how specific assets can help them to cope and how they can apply skills in other areas of their lives (e.g., being more self-reliant or applying problem-solving skills).

Overall, the present findings provide a number of recommendations for practitioners. In essence, program design was the most significant contributing factor in supporting the development of resilience, learning effective coping skills and transferring these skills into other contexts. The way that a program is designed is integral to developing a framework that; (a) is consistent with the program aims and outcomes, (b) caters for participants 'core' and 'conditioning' layers, (d) addresses risk management guidelines, (e) provides appropriate levels of challenges, and (f) considers and plans for the transference of learning outcomes into other contexts.

Consideration must be given to the research findings that emphasise the importance of post-activity outdoor education during the Integration Phase of program design, as it was critical in supporting the transference of skills. The results emphasise that more needs to be done to support the transference and longevity of these skills during the Integration Phase, by providing opportunities to practice, develop, reflect and refine the skills learnt during the program. Post-

activity outdoor education during the Integration Phase should be considered as an equally important element of program design as the Immersion Phase of programming.

An individual's resilience capacity depends on their ability to draw upon their internal and external assets, and the extent of adaption displayed by an individual in specific contexts may be related to the extent in which the environment has supporting factors that nurture the development of resilience (Ungar, 2008). Consequently, it is suggested that by combining proactive, strength-based, stress inoculation approaches into outdoor education program design, interventions can adopt a preventative approach to mental health and well-being by educating young people on specific coping skills and assets that may help them to cope.

The conclusions of this study will have significant applications in supporting schools and educators to develop programs that use best practices to expand an individual's resilience capacity and foster the transference of skills and assets long-term. The recommended RDPD presented in this chapter provides practical applications for practitioners to apply intentional program design that endeavours to develop effective coping skills and resilience during the program and how to best support the transference of these skills into other contexts.

As the dual axis model of mental health indicates, (see Figure 2.2) schools can aim to improve the health and well-being of everyone regardless of their current mental health status. Overall, the research findings indicated that by providing adolescents, who are still establishing their own identities, values and

beliefs, with opportunities for personal growth; schools and educators can use outdoor education programs to strengthen and develop psychosocial attributes and coping skills. The three-phase outdoor education program design (i.e., RDPD) can foster the development and transference of developmental skills and assets, and support the maintenance of young people's physical, mental, social and emotional well-being by expanding their resilience capacity and helping them progress to become more resilient individuals (Friedli, 2009; Wagnild, 2009, 2010; World Health Organization, 2009).

CHAPTER 7: SUMMARY AND CONCLUSION

It is good to have an end to journey towards,

but it is the journey that matters, in the end

– Ursula le Guin

Figure 7.1. Last day sunrise hike to Mt Kosciusko.

The purpose of this study was to investigate if resilience is context specific to the field of outdoor education. Specifically, the thesis examined the impact of participation in an extended journey style outdoor education program on enhancing levels of resilience and coping skills in adolescent boys immediately after participation in the 21-day program, and again six months after the program concluded. The study also investigated how resilience and coping skills can be best developed and transferred into other contexts of learning. Statistically significant associations were found between the study variables within the

program group and the control group. As the final chapter of this thesis, this chapter summarises the conclusions drawn from the quantitative and qualitative data and encapsulates a synopsis of the implications for practitioners and recommendations for future research.

Summary

The literature review presented in Chapter 2 establishes the importance of strengthening developmental assets and coping skills to foster the enhancement of adolescents' psychological resilience capacity. Outdoor education interventions that use a stress inculcation approach in the program design provide a 'learning playground' for participants to develop and practice coping skills and resilience attributes (Booth, 2015; Meichenbaum, 2017b; Rutter, 1993). In accordance, the challenge of this study was to measure the impacts of the outdoor education program on building resilience and coping skills, to analyse the short-term and long-term effects on young people and use these findings to assist in improving outdoor education program design that fosters the development and transference of these essential developmental skills.

The post-positivist, constructivist approach to the mixed method design allowed for the quantitative data to be cross-examined and reinforced by the qualitative data. The findings of this thesis advocate that an individual's resilience capacity is increased by developing and strengthening their internal and external assets through exposure to gradual stressful and challenging experiences that require adaption during outdoor education programs. It was critical to support the

participants to develop their individual understandings of how they interact with their environments, how they respond to stress and challenges, and how they interact with people. However, resilience was perceived to be content- and context specific to the setting in which it is developed, unless the participants were supported through the debrief and reflection processes and guided to make clear connections between the different contexts of learning and application. To assist in the transference of skills and assets post-program, it may be more beneficial to simplify the ideas associated with understanding the concept of resilience and developmental assets, and explicitly teach psychoeducational curriculum and coping skills so that the young people can connect with, and understand how specific assets can help them to cope and how they can use these assets in other domains of their lives. As a result of the findings, the following conclusions can be drawn:

1. Significant, positive changes were evident in the program group for resilience, compared to the control group. In addition, significant, positive changes were evident in several resilience attributes, such as perseverance, existential aloneness and purposeful life, indicating that outdoor education programs can have a small positive effect on a participant's overall sense of resilience.
2. Levels of internal developmental assets, such as perseverance, self-reliance and determination, can be enhanced through participation in extended journey style outdoor education programs.

3. Levels of external developmental assets, such as positive relationships with peers, leaders and family members, can be enhanced through participation in extended journey style outdoor education programs.
4. Coping skills developed and strengthened during the outdoor education program, acted as both internal assets and external assets to mediate individuals responses to stress.
5. Outdoor education programs can reduce coping mechanisms that undermine well-being in youth, such as Substance Use and Behavioural Disengagement.
6. Outdoor education program design that focuses on the three critical stages of program design (Frontloading, Immersion and Integration Phases) can assist and support participants to transfer of learning into other contexts.
7. Outdoor education practitioners can actively assist young people to develop their resilience capacity through facilitating ongoing reflection and personal awareness activities that focus on an individual's understandings of their goals, attitudes, thoughts, behaviours and actions.
8. Outdoor education practitioners can actively assist young people to develop coping skills through explicitly teaching various coping mechanisms and guiding them to become self-aware.
9. Outdoor education practitioners can actively assist young people to transfer their learning of resilience attributes and coping skills by

helping them to conceptually understand the concepts and make links between the application of the skills in different contexts.

10. Young people are very adaptable; however, without follow-up post-program, in most cases, the young people in this study adapted straight back to the life they were living previous to their learning experiences.

Conclusions

In conclusion, this study provided valuable support for applied methodological and empirical contributions to knowledge and research about the impacts of outdoor education programs on the development and transference of psychological resilience and coping skills into other contexts. This thesis supports past research that recognises that problem-focused coping strategies are associated with adaptive outcomes, such as enhanced resilience. The findings of this study demonstrate an important step in validating that psychological resilience, resilience attributes, developmental assets and coping skills can be enhanced through participation in extended journey style outdoor education programs.

However, the results also indicate that additional support is required to integrate and foster the transference of learning, and to maintain, continuously strengthen and further develop these essential life skills after participation in the intervention. It appears that outdoor education programs are currently being designed and implemented based on facilitator intuition, with the idea that ‘because programs may have a positive effect on the development of resilience and coping skills, that these skills will automatically be transferred and utilised by

participants in non-outdoor education settings'. Except, the findings of this research reveal that this is not the case and more needs to be done to foster the transference of these skills. Therefore, the recommendation presented in the previous Chapter that outdoor education program designs be revised to include a follow-up and Integration Phase, for interventions that intend to develop and transfer psychological resilience and coping skills in young people provides an integral concluding perspective.

These findings provide important data to guide future research to further investigate how outdoor education programs can be designed to intentionally enhance the development of resilience attributes and coping skills in participants and assist them to transfer and apply these skills in other contexts. The implications and recommendations of this research aim to inform teachers, schools, outdoor educators and industry providers, with the knowledge to develop and implement, effective outdoor education programs that aim to enhance resilience attributes and coping strategies in young people.

Schools continue to play a vital role in helping young people to maintain mental health and well-being. This was further enforced by the data that showed that schools who employ outdoor education programs can assist their students to develop their resilience capacity, developmental assets and coping skills. In addition, the programs curriculum and design impacts and influences the transference of these skills learnt during the outdoor education program into other contexts. As such, instead of taking a reactive approach, schools can take a preventative approach to mental health promotion, by utilising outdoor education

programs as an intervention to develop coping skills and their resilience capacity. By providing opportunities for young people to be engaged in outdoor education programs, that explicitly aim to develop their resilience capacity and repertoire of effective coping skills, schools can continuously support their students to transfer their learnings and integrate these skills into various life contexts.

Similarly, as an outcome of the findings, it is recommended that mainstream outdoor education programs aim to take a preventative approach to promote mental health and well-being in young people, by implementing program designs based on proactive resilience development frameworks, such as the Resilience Development Program Design (RDPD) guidelines presented in this research. It is the responsibility of schools and educators to continuously recap learning's, assist young people to transfer the skills learnt during programs and support them to integrate these skills long-term into contexts other than outdoor education.

As the field of outdoor education continues to move forward in terms of evidenced-based practices and empirical research, there is a continued need for the development of models (e.g., stress inoculation training and the RDPD guidelines), as well as substantiated theories in the areas of neuroeducation and psychoeducation that will enable the field to move forward with new findings and current research. Future research is required to; (1) further understand how learnings and skills developed during programs can be best supported, transferred, maintained and integrated into other contexts of participants daily lives; (2) how mainstream outdoor education program designs and practitioners can incorporate

psychoeducational curriculum and implement proactive mental health promotion and prevention strategies, such a positive psychology and ‘prehabilitation philosophies’; and (3) how cognitive behavioural techniques, such as cognitive reframing, and problem-solving, solution-focused approaches can be implemented into program design and implementation.

Ultimately, demonstrating positive change in young people’s resilience and coping skills through outdoor education as an intervention is vital. By building on this work, researchers will be able to provide a clearer direction by documenting and examining not only how participants have changed as a result of the intervention, but also record how these changes impact their future and their future responses to stress and life challenges in varied contexts.

Concluding Comments

Outdoor education programs and practitioners usually exist because they want to help people. The researcher believes that outdoor education programs can achieve the key ingredients of successful learning, optimal learning environments and personal development of essential life skills during and after the program through intentional program design and implementation, such as the RDPD presented in this study.

Whatever criticisms of the RDPD that has been suggested, the researcher posits that the guidelines warrant further investigation to understand the benefits and outcomes of the recommended program design. There are so many different variables that affect learning outcomes and the transferability of skills post-participation in outdoor education programs. However, fundamentally, it is

important to take a lifelong learning approach, where educators support the integration of essential life skills developed during outdoor education programs into other contexts of young people's lives.

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APPENDICES

Appendix A: Human Research Ethics Approval

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

MEMO

TO Dr Peter Burridge
School of Education
Department of Arts, Education a nd Human Development
Victoria University

DATE 10/082012

FROM Dr Debra Kerr
Acting Chair
Victoria University Human Research Ethics Committee

SUBJECT Ethics Application – HRETH 12/198

Dear Dr Burridge,

Thank you for submitting this a pplication for ethical a pproval of the p roject entitled:

HRETH 12/198 Resilience, adolescents and ou tdoor education: Is resilience context specific? (HREC 12/141)

The proposed research project has been accepted and deemed to meet the requirements of the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007)' by the Victoria University Human Research Ethics Committe e. Approval has been granted from **10 August 2012 to 10 August 2014.**

Continued approval of this research project by the Victoria University Human Research Ethics Committee (VUHREC) is conditional upon the provision of a report within 12 months of the above approval date (**10 August 2013**) or upon the completion of the project (if earlier). A report proforma may be downloaded from the VUHREC web site at: http://research.vu.edu.au/hrec.php

Please note that the Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious events or adverse and/or unforeseen events that may affect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes. Researchers are also reminded of the need to notify the approving HREC of changes to personnel in research projects via a request for a minor amendment. It should also be noted that it is the Chief Investigators' responsibility to ensure the research project is conducted in line with the recommendations outlined in the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007).'

On behalf of the Committee, I wish you all the best for the conduct of the project.

Kind regards,

Dr Debra Kerr
Acting Chair
Victoria University Human Research Ethics Committee

Appendix B: Invitation Letter to Program Group Principal

August 3, 2012

[redacted]

RE: Casie-Anne Chalman's, request for Yarra College to participate in research.

Dear Mr [redacted]

My name is Casie-Anne Chalman, and I am writing to you to invite Yarra College to participate in a research project entitled Resilience, adolescents and outdoor education: Is resilience context specific? I am currently working as a Lecturer in the Outdoor Education Department at Victoria University and completing my Masters in Education (Outdoor Education) at Victoria University.

Yarra College would be a perfect candidate for involvement in this research project as I know you deliver outdoor education programs from years 7-9, as well as providing the City to Summit experience, a compulsory extended journey style outdoor education program for your Year 10 cohort. As developing resilience and educating for the whole person are core values of Yarra College, this research aligns directly with your school culture.

Increasing our understanding of the enhancement and application of resilience attributes in secondary school students, will enable school teachers, educators and outdoor education providers to develop improved and effective programs that assist the development and transference of resilience in young people.

Please refer to the information sheet attached which outlines the schools involvement and the requirements of participants.

Thank you for your time and assistance in this research project.

Sincerely,

Student Researcher:
Casie Chalman
Phone: [redacted]
Email: [redacted]

Appendix C: Invitation Letter to Control Group Principal

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

3. August. 2012

School of Education

[redacted]

RE: Casie Chalman's, request for Beachside College to participate in research.

Dear Mr [redacted]

My name is Casie-Anne Chalman, and I am writing to you to invite Beachside College to participate in a research project entitled Resilience, adolescents and outdoor education: Is resilience context specific? I am currently working as a Lecturer in the Outdoor Education Department at Victoria University and completing my Masters in Education (Outdoor Education) at Victoria University.

Beachside College would be a perfect candidate for involvement in this research project as I know you deliver outdoor education programs from years 7-9 and VCE Outdoor and Environmental Studies. As developing resilience and educating for the whole person are core values of Beachside College, this research aligns directly with your school culture.

Increasing our understanding of the enhancement and application of resilience attributes in secondary school students, will enable school teachers, educators and outdoor education providers to develop improved and effective programs that assist the development and transference of resilience in young people.

Please refer to the information sheet attached which outlines the schools involvement and the requirements of participants.

Thank you for your time and assistance in this research project.

Sincerely,

Student Researcher:
Casie Chalman
Phone: [redacted]
Email: [redacted]

Appendix D: Information to Program Group (School)

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

INFORMATION TO SCHOOLS INVOLVED IN RESEARCH

You are invited to participate

Yarra College is invited to participate in a research project entitled Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

Project explanation

This research will explore the experiences of students who have participated in the Year 10 *City to Summit*. The aim of this research is to investigate which attributes of resilience and coping are developed and transferred into the lives of young people through participation in a journey style outdoor education program. The first aspect will look at attributes of resilience and coping through an online questionnaire which will occur before and after the program.

The second phase of the research will invite twenty students in groups of four to be a part of a small group discussion to talk about their experience on the program. The information gathered from the research will then be used to inform future practice and development of outdoor education programs.

What will the school be asked to do?

The school will be asked to support the research by allowing access for Year 10 participants involved in the *City to Summit* outdoor education program, to complete two online questionnaires and provide a room to conduct the small group discussions. School email addresses of the students participating on the program will also be required to send the questionnaire links. Specifically, arrangements will be made with teachers from Yarra College to access a room and schedule time to administer the questionnaires on two occasions. These questionnaires will take approximately 10 minutes to complete.

What will school gain from participating?

The school will be provided with an end of project report that will help to inform future practice and improved programs which develop, enhance and transfer attributes of resilience and coping skills in young people.

How will the information be used?

All the information collected during the study will be used to identify which attributes of resilience and coping are developed and transferred into the lives of young people through participation in a journey style outdoor education program. These findings will be used to inform school teachers, educators and outdoor education providers to develop improved and effective outdoor education programs which facilitate the development and transference of resilience attributes in young people. The findings of the research will be presented in a Thesis, at conferences and in journal articles.

What are the potential risks of participating in this project?

The risk to school participants is very small. There is the small possibility that during participation in the small group interviews or partaking in the questionnaires, students may reminded of an unpleasant past experience and students

may not feel comfortable talking about the experience. Should this occur, students do not have to complete the questionnaire or provide a response during the interview. If students are particularly distressed or uncomfortable, the interview will be stopped immediately by the researcher. During the interviews, students may also feel uncomfortable talking freely in front of other students in the small group. The researcher will be conducting the discussions to minimise any coercive behaviour and students will never be forced to respond to any questions. The researcher will stop the interview if she feels that any participant is particularly uncomfortable. Anyone who appears to be participating under duress will also be withdrawn from the study discretely. If during an interview a student becomes uncomfortable with or distressed by the material, that line of questioning will be stopped. If a participant becomes distressed they will be offered the option of additional assistance from the school student welfare counsellor, as the person most appropriate to speak to students from the school. If required, students will also be told of the option to speak to an independent clinical psychologist, Dr Carolyn Deans, who is a staff member at Victoria University but who is not involved in this research program. Please remember your participation is voluntary and you may withdraw from the research at anytime. Be assured that the small group interviews will be conducted with care and the researcher has extensive experience working with young people. All data collected will be kept confidential and will not be connected with the schools name in any way. This research is focused on the development of resilience and outdoor education programs and is not linked to the learning tasks or assessment tasks you may complete as part of your studies.

How will this project be conducted?

Information will be collected through two phases. In the first phase, students will receive a link via email to the questionnaires online. They will be given time to complete the questionnaire at school during two different times. The first questionnaire will be held on September 21st and 22nd 2012. The final questionnaire will be conducted throughout the month of November 2012 and will be completed the day after they complete the *City to Summit* program. The questionnaire should only take about ten minutes to complete.

The second phase involves group discussions, where twenty randomly selected students will be asked to participate in small group discussions. The first will occur straight after the *City to Summit* program and should last for approximately one hour.

Who is conducting the study?

Victoria University

Chief investigator:
Dr Peter Burridge
Phone: [redacted]
Email: [redacted]

Associate Investigator:
Dr Lauren Banting
Phone: [redacted]
Email: [redacted]

Student Researcher:
Casie Chalman
Phone: [redacted]
Email: [redacted]

Any queries about your participation in this project may be directed to the Chief Investigator listed above.
If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

Appendix E: Information to Control Group (School)

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

INFORMATION TO SCHOOLS INVOLVED IN RESEARCH

You are invited to participate

Beachside College is invited to participate in a research project entitled Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

Project explanation

This research will examine the student experience during their Year 10 studies. The aim of this research is to investigate which attributes of resilience and coping are developed and drawn upon by young people during their Year 10 experience. The research will look at attributes of resilience and coping through an online questionnaire which will occur over two different time periods to see if there is any change in their levels of resilience or coping over time.

What will the school be asked to do?

The school will be asked to support the research by allowing access for Year 10 participants who are not studying outdoor education to be involved in the study by completing surveys. School email addresses of the students participating on the program will also be required to send the questionnaire links. Specifically, arrangements will be made with teachers from Beachside College to access a room and schedule time to administer the questionnaires on two occasions. These questionnaires will take approximately 10 minutes to complete.

What will school gain from participating?

The school will be provided with an end of project report that will help to inform future practice and improved programs which develop, enhance and transfer attributes of resilience and coping skills in young people.

How will the information be used?

All the information collected during the study will be used to identify which attributes of resilience and coping are developed and transferred into the lives of young people during their Year 10 studies. These findings will be used to inform school teachers and educators to develop improved and effective programs which facilitate the development and transference of resilience attributes and coping skills in young people. The findings of the research will be presented in a Thesis, at conferences and in journal articles.

What are the potential risks of participating in this project?

The risk to school participants is very small. There is the small possibility that completing the questionnaires, may remind students of an unpleasant past experience. Should this occur, students do not have to complete the questionnaire. If students are particularly distressed or uncomfortable, completing the questionnaire will be stopped. If required, students will also be told of the option to speak to an independent clinical psychologist, Dr Carolyn Deans, who is a staff member at Victoria University and is not involved in this research program. Student participation is voluntary and you may withdraw from the research at anytime. All data collected will be kept confidential and will not be connected with the students' name in any way. This research is focused on the development of resilience and outdoor

education programs and is not linked to the learning tasks or assessment tasks you may complete as part of students' studies.

How will this project be conducted?

Students' will receive a link via email to the questionnaires online. They will be given time to complete the questionnaire at school during two different times. The first questionnaire will be held during September 2012 and the final questionnaire will be conducted throughout the month of November 2012. The questionnaire should only take about ten minutes to complete.

Who is conducting the study?

Victoria University

Chief investigator:
Dr Peter Burridge
Phone: [redacted]
Email: [redacted]

Associate Investigator:
Dr Lauren Banting
Phone: [redacted]
Email: [redacted]

Student Researcher:
Casie Chalman
Phone: [redacted]
Email: [redacted]

Any queries about your participation in this project may be directed to the Chief Investigator listed above.
If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

Appendix F: Program Group Consent Form (School)

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

CONSENT FORM FOR SCHOOL INVOLVEMENT IN THE RESEARCH

INFORMATION TO PARTICIPANTS:
We would like to invite Yarra College to be a part of a study entitled Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This research will explore the experiences of students who have participated on the *City to Summit* outdoor education program. The aim of this research is to investigate which attributes of resilience and coping are developed and transferred into the lives of young people through participation in a journey style outdoor education program. The first aspect will look at attributes of resilience and coping through an online questionnaire which will occur before and after the program.

The second phase of the research will invite twenty students in groups of four to be a part of small group discussions to talk about their experience on the program. The information gathered from the research will then be used to inform future practice and development of outdoor education programs.

The research is voluntary and the information retrieved from data collection will be kept confidential and nobody will be named personally. Participants can withdraw from the research if they do not want to proceed.

CERTIFICATION BY SUBJECT

I, ……(name)…… (Position held)

On behalf of ……(name of school) give my consent for the school to participate in the study: Resilience, Adolescents and Outdoor Education: Is resilience context specific? This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Casie Chalman
and that I freely consent to students being invited to voluntarily be involved in the study and that the below mentioned procedures can be conducted at the school:

- Students' are able to participate in completing two online questionnaires which will be conducted in September 2012 and November 2012.
- Students' are able to participate in small group discussions which will explore their experience after the program.

I certify that I have had the opportunity to have any questions answered and that I understand that the school can withdraw from this study at any time and that this withdrawal will not jeopardise the school in any way.

I have been informed that the information provided by staff and students will be kept confidential.

Signed:

(Principal or Authorised Representative of Yarra College)

Date:

Appendix G: Control Group Consent Form (School)

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

CONSENT FORM FOR SCHOOL INVOLVEMENT IN THE RESEARCH

INFORMATION TO PARTICIPANTS:
We would like to invite Beachside College to be a part of a study entitled Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This research will examine the student experience of students who have chosen not to be involved in outdoor education during their Year 10 studies. The aim of this research is to investigate which attributes of resilience and coping are developed and drawn upon by young people during their Year 10 experience. The research will look at attributes of resilience and coping through an online questionnaire which will occur over two different time periods to see if there is any change in their levels of resilience or coping over time.

The research is voluntary and the information retrieved from data collection will be kept confidential and nobody will be named personally. Participants can withdraw from the research if they do not want to proceed.

CERTIFICATION BY SUBJECT

I, ……(name)……(Position held)

On behalf of ……(name of school) give my consent for the school to participate in the study: Resilience, Adolescents and Outdoor Education: Is resilience context specific? This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Casie Chalman

and that I freely consent to students being invited to voluntarily be involved in the study and that the below mentioned procedures can be conducted at the school:

- Students' are able to participate in completing two online questionnaires which will be conducted in September 2012 and November 2012.

I certify that I have had the opportunity to have any questions answered and that I understand that the school can withdraw from this study at any time and that this withdrawal will not jeopardise the school in any way.

I have been informed that the information provided by staff and students will be kept confidential.

Signed:

(Principal or Authorised Representative of Beachside College)

Date:

Appendix H: Information to Program Group (Parents and Participants)

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH

You are invited to participate

You are invited to participate in a research project entitled Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

Project explanation

This research will examine two aspects of the student experience during and after the *City to Summit* program. The aim of this research is to investigate which attributes of resilience and coping are developed and transferred into the lives of young people through participation in a journey style outdoor education program. The first aspect will look at attributes of resilience and coping through an online questionnaire which will occur before and after the program.
The second aspect of the research will invite twenty students to be a part of small group discussions which will explore their experiences after the program. The information gathered from the research will then be used to inform future practice and development of outdoor education programs.

The research is voluntary and the information retrieved from data collection will be kept confidential and nobody will be named personally. Participants can withdraw from the research if they do not want to proceed.

What will I be asked to do?

You will be asked to participate in completing two online questionnaires at school. They will be the same questionnaires completed at two different times. The questionnaire should only take about ten minutes to complete. The first round of questionnaires will be completed before the program in September and the second round will be completed the next day after the program.

In addition, the twenty volunteers who will be randomly selected will be invited to participate in small group discussions which should last for approximately one hour. This will occur immediately after the *City to Summit* program. The small group interviews will be conducted during a reflective day for the camp which will involve various other small group activities.

What will I gain from participating?

You will have the opportunity to talk about your experiences or view your personal opinion about the *City to Summit* program. Your opinion is valued by the researcher and you will have the satisfaction that you have helped increase our understanding of the program which may impact the development of outdoor education programs for participants in the future.

How will the information I give be used?

All the information collected during the study will be used to identify which attributes of resilience and coping are developed and transferred into the lives of young people through participation in a journey style outdoor education program. These findings will be used to inform school teachers, educators and outdoor education providers to develop improved and effective outdoor education programs which facilitate the development and transference of resilience attributes in young people. This will be presented in the format of a Thesis, conference proceedings and/ or journal articles.

What are the potential risks of participating in this project?

There is the small possibility that during participation in the small group interviews or partaking in the questionnaires, that you may be reminded of an unpleasant past experience and you may not feel comfortable talking about the experience. Should this occur, you do not have to complete the questionnaire or provide a response during the interview. If you are particularly distressed or uncomfortable, the interview will be stopped immediately by the researcher. During the interviews, you may also feel uncomfortable talking freely in front of other students in the small group.The researcher will be conducting the discussions to minimise any coercive behaviour and you will never be forced to respond to any questions. The researcher will stop the interview if she feels that any participant is particularly uncomfortable. Anyone who appears to be participating under duress will also be withdrawn from the study discretely. If during an interview you become uncomfortable with or distressed by the material, that line of questioning will be stopped. If you become distressed you will be offered the option of additional assistance from the school student welfare counsellor, as the person most appropriate to speak to from the school. If required, you will also be told of the option to speak to an independent clinical psychologist, Dr Carolyn Deans, who is a staff member at Victoria University and is not involved in this research program. Please remember your participation is voluntary and you may withdraw from the research at anytime. Be assured that the small group interviews will be conducted with care and the researcher has extensive experience working with young people. All data collected will be kept confidential and will not be connected with your name in any way. This research is focused on the development of resilience and outdoor education programs and is not linked to the learning tasks or assessment tasks you may complete as part of your studies.

How will this project be conducted?

You will receive a link via email to the questionnaires online. You will be given time to complete the questionnaire at school during two different times. On the 14th of September 2012, you will complete the first round of online questionnaires. The questionnaires will be conducted during pre-trip preparation time at school when all the students attending the camp will also be completing a variety of different forms. On the last day of the *City to Summit* outdoor education program, you will have time allocated during your reflection time to complete the second round of questionnaires.

The twenty randomly selected students will be asked to participate in small group discussions. These students will be randomly selected from those that have consented to participate in the small group discussions as indicated on their consent form. Selected students will be notified that the discussions will occur on the reflection day immediately after completion of the *City to Summit* program. The small group discussions will be conducted by the Student Researcher. In groups of four, students will be asked about their experiences during the *City to Summit* program. The interviews will be conducted in a meeting room and all information will be kept confidential.

Who is conducting the study?

Victoria University

Chief investigator:
Dr Peter Burridge
Phone: [redacted]
Email: [redacted]

Associate Investigator:
Dr Lauren Banting
Phone: [redacted]
Email: [redacted]

Student Researcher:
Casie Chalman
Phone: [redacted]
Email: [redacted]

Any queries about your participation in this project may be directed to the Chief Investigator listed above.
If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

Appendix I: Information to Control Group (Parents and Participants)

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH

You are invited to participate

You are invited to participate in a research project entitled Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

Project explanation

This research will examine the student experience during their Year 10 studies. The aim of this research is to investigate which attributes of resilience and coping are developed and drawn upon by young people during their Year 10 experience. The research will look at attributes of resilience and coping through an online questionnaire which will occur over two different time periods to see if there is any change in their levels of resilience or coping.

The research is voluntary and the information retrieved from data collection will be kept confidential and nobody will be named personally. Participants can withdraw from the research if they do not want to proceed.

What will I be asked to do?

You will be asked to participate in completing two online questionnaires. They will be the same questionnaires completed at different times. The questionnaire should only take about ten minutes to complete. The first round of questionnaires will be completed in September and the second round will be completed in November.

What will I gain from participating?

You will have the opportunity to voice your personal opinion and beliefs about your experience during Year 10. Your opinion is valued by the researcher and you will have the satisfaction that you have helped increase our understanding of resilience and coping in young people which may impact on the development of programs for participants in the future.

How will the information I give be used?

All the information collected during the study will be used to identify which attributes of resilience and coping are developed and drawn upon by Year 10 students. These findings will be used to inform school teachers and educators to develop improved and effective programs which facilitate the development and transference of resilience attributes and coping skills in young people. This will be presented in the format of a Thesis, conference proceedings and/ or journal articles.

What are the potential risks of participating in this project?

The risk to school participants is very small. There is the small possibility that completing the questionnaires, may remind you of an unpleasant past experience. Should this occur, you do not have to complete the questionnaire. If you are particularly distressed or uncomfortable, completing the questionnaire will be stopped immediately by the researcher. If required, you will also be given the option to speak to an independent clinical psychologist, Dr Carolyn Deans, who is a staff member at Victoria University and is not involved in this research program. Student participation is voluntary and you may withdraw from the research at anytime. All data collected will be kept confidential and will not

be connected with the students' name in any way. This research is focused on the development of resilience and outdoor education programs and is not linked to the learning tasks or assessment tasks you may complete as part of students' studies.

How will this project be conducted?

During each stage, you will receive a link via email to the questionnaires online. You will have a week period to complete questionnaire at school or in your own time.

Who is conducting the study?

Victoria University

Chief investigator:
Dr Peter Burridge
Phone: [redacted]
Email: [redacted]

Associate Investigator:
Dr Lauren Banting
Phone: [redacted]
Email: [redacted]

Student Researcher:
Casie Chalman
Phone: [redacted]
Email: [redacted]

Any queries about your participation in this project may be directed to the Chief Investigator listed above.
If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

Appendix J: Program Group Consent Form for Questionnaires

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

CONSENT FORM FOR STUDENTS INVOLVED IN RESEARCH QUESTIONNAIRES

INFORMATION TO PARTICIPANTS:
We would like to invite you to be a part of a study called Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This research will examine two aspects of the student experience during and after the *City to Summit* program. The aim of this research is to investigate which attributes of resilience and coping are developed and transferred into the lives of young people through participation in a journey style outdoor education program. The first aspect will look at attributes of resilience and coping through an online questionnaire which will occur before and after the program.
The second aspect of the research will invite twenty students to be a part of small group discussions which will explore their experiences after the program. The information gathered from the research will then be used to inform future practice and development of outdoor education programs.

The research is voluntary and the information retrieved from data collection will be kept confidential and nobody will be named personally. Participants can withdraw from the research if they do not want to proceed.

CERTIFICATION BY PARENT / GUARDIAN FOR STUDENT

I, ……(name) of

…… (Suburb)

certify that I am at least 18 years old* and that I am voluntarily giving my consent for my child to participate in the study: Resilience, Adolescents and Outdoor Education: Is resilience context specific? This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Casie Chalman
and that I freely consent to my child's participation involving the below mentioned procedures:

- Participation in completing two online questionnaires which will be conducted in September 2012 and November 2012.

I certify that I have had the opportunity to have any questions answered and that I understand that my child can withdraw from this study at any time and that this withdrawal will not jeopardise him or her in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date:

Appendix K: Program Group Consent Form for Small Group Interviews

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

CONSENT FORM FOR STUDENTS INVOLVED IN RESEARCH DISCUSSIONS

INFORMATION TO PARTICIPANTS:
We would like to invite you to be a part of a study called Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This research will examine two aspects of the student experience during and after the *City to Summit* program. The aim of this research is to investigate which attributes of resilience and coping are developed and transferred into the lives of young people through participation in a journey style outdoor education program. The first aspect will look at attributes of resilience and coping through an online questionnaire which will occur before and after the program.
The second aspect of the research will invite twenty students to be a part of small group discussions which will explore their experiences after the program. The information gathered from the research will then be used to inform future practice and development of outdoor education programs.

The research is voluntary and the information retrieved from data collection will be kept confidential and nobody will be named personally. Participants can withdraw from the research if they do not want to proceed.

CERTIFICATION BY PARENT / GUARDIAN FOR STUDENT

I, ……(name) of

…….. (Suburb)

certify that I am at least 18 years old* and that I am voluntarily giving my consent for my child to participate in the study: Resilience, Adolescents and Outdoor Education: Is resilience context specific? This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Casie Chalman
and that I freely consent to my child's participation involving the below mentioned procedures:

- ☐ Participation in small group discussions which will explore their experience after the program.

I certify that I have had the opportunity to have any questions answered and that I understand that my child can withdraw from this study at any time and that this withdrawal will not jeopardise him or her in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date:

Appendix L: Control Group Consent Form for Questionnaires

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

CONSENT FORM FOR STUDENTS INVOLVED IN RESEARCH QUESTIONNAIRES

INFORMATION TO PARTICIPANTS:
We would like to invite you to be a part of a study called Resilience, Adolescents and Outdoor Education: Is resilience context specific?

This research will examine the student experience during their Year 10 studies. The aim of this research is to investigate which attributes of resilience and coping are developed and drawn upon by young people during their Year 10 experience. The research will look at attributes of resilience and coping through an online questionnaire which will occur over two different time periods to see if there is any change in their levels of resilience or coping over time.

The research is voluntary and the information retrieved from data collection will be kept confidential and nobody will be named personally. Participants can withdraw from the research if they do not want to proceed.

CERTIFICATION BY PARENT / GUARDIAN FOR STUDENT

I, …….. (name) of

……..(Suburb)

certify that I am at least 18 years old* and that I am voluntarily giving my consent for my child to participate in the study: Resilience, Adolescents and Outdoor Education: Is resilience context specific? This project is being conducted by a student researcher, Casie Chalman as part of a Masters by Research study at Victoria University under the supervision of Dr Peter Burridge from the Department of Arts, Education and Human Development and Dr Lauren Banting from the Institute of Sport, Exercise and Active Living (ISEAL).

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Casie Chalman
and that I freely consent to my child's participation involving the below mentioned procedures:

- Participation in completing two online questionnaires which will be conducted in September 2012 and November 2012.

I certify that I have had the opportunity to have any questions answered and that I understand that my child can withdraw from this study at any time and that this withdrawal will not jeopardise him or her in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date:

Appendix M: Program Outline

City to Summit Outline 2012 (2 day split start)

17 groups of 12-14 students per group

		Group																
Date	Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
20-Oct-12	1	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty															
21-Oct-12	2	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur															
22-Oct-12	3	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty													
23-Oct-12	4	Kelly Hut	Fitgerald Hut to	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur													
24-Oct-12	5	Jokers Flat	Big River Bridge	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty											
25-Oct-12	6	Winter Take Out	Jokers Flat	Kelly Hut to	Fitgerald Hut to	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur											
26-Oct-12	7	Hinnomunjie	Winter Take Out	Jokers Flat	Big River Bridge	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty									
27-Oct-12	8	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Kelly Hut to	Fitgerald Hut to	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur									
28-Oct-12	9	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Big River Bridge	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty							
29-Oct-12	10	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Kelly Hut to	Fitgerald Hut to	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur							
30-Oct-12	11	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Joker Flat	Big River Bridge	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty					
31-Oct-12	12	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Kelly Hut to	Fitgerald Hut to	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur					
1-Nov-12	13	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Joker Flat	Big River Bridge	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty			
2-Nov-12	14	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Kelly Hut to	Fitgerald Hut to	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur			
3-Nov-12	15	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Joker Flat	Big River Bridge	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty	Wangaratta to Mt Beauty	
4-Nov-12	16	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Kelly Hut to	Fitgerald Hut to	Start Windy Corner to Pretty Valley	Start Windy Corner to Heathy Spur	
5-Nov-12	17	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Joker Flat	Big River Bridge	Cope Hut	Johnson's Hut	Wangaratta to Mt Beauty
6-Nov-12	18	Merritts Camp	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Kelly Hut to	Fitgerald Hut to	Start Windy Corner to Pretty Valley
7-Nov-12	19	SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Joker Flat	Big River Bridge	Cope Hut
8-Nov-12	20	Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Jokers Flat	Kelly Hut to
9-Nov-12	21			SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out	Joker Flat
10-Nov-12	22			Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie	Winter Take Out
11-Nov-12	23					SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing	Hinnomunjie
12-Nov-12	24					Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra	Taylors Crossing
13-Nov-12	25							SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site	Cycle to Benambra
14-Nov-12	26							Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO	Cycle to Buenbal Hut Site
15-Nov-12	27									SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut	SOLO
16-Nov-12	28									Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek	Buckwong Hut
17-Nov-12	29											SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain	Charlies Creek
18-Nov-12	30											Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp	Dead Horse Spur	Leather Barrell Creek	Tom Groggin	Davies Plain
19-Nov-12	31													SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur	Leather Barrell Creek	Tom Groggin
20-Nov-12	32													Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp	Dead Horse Spur	Leather Barrell Creek
21-Nov-12	33															SUMMIT DAY. Merritts Camp	SUMMIT DAY. Cootapatamba	Dead Horse Spur
22-Nov-12	34															Walk to Thredbo. Travel	Walk to Thredbo. Travel	Merritts Camp
23-Nov-12	35																	SUMMIT DAY. Merritts Camp
24-Nov-12	36																	Walk to Thredbo. Travel

Appendix N: Phase I- Resilience Scale

Date: _____

Please read the following statements. To the right of each you will find seven numbers, ranging from "1" (Strongly Disagree) on the left to "7" (Strongly Agree) on the right. Circle the number which best indicates your feelings about that statement. For example, if you strongly disagree with a statement, circle "1". If you are neutral, circle "4", and if you strongly agree, circle "7", etc.

	Strongly Disagree						**Strongly Agree**
1. When I make plans, I follow through with them.	1	2	3	4	5	6	7
2. I usually manage one way or another.	1	2	3	4	5	6	7
3. I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4. Keeping interested in things is important to me.	1	2	3	4	5	6	7
5. I can be on my own if I have to.	1	2	3	4	5	6	7
6. I feel proud that I have accomplished things in life.	1	2	3	4	5	6	7
7. I usually take things in stride.	1	2	3	4	5	6	7
8. I am friends with myself.	1	2	3	4	5	6	7
9. I feel that I can handle many things at a time.	1	2	3	4	5	6	7
10. I am determined.	1	2	3	4	5	6	7
11. I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12. I take things one day at a time.	1	2	3	4	5	6	7
13. I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14. I have self-discipline.	1	2	3	4	5	6	7
15. I keep interested in things.	1	2	3	4	5	6	7
16. I can usually find something to laugh about.	1	2	3	4	5	6	7
17. My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18. In an emergency, I'm someone people can generally rely on.	1	2	3	4	5	6	7
19. I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20. Sometimes I make myself do things whether I want to or not.	1	2	3	4	5	6	7
21. My life has meaning.	1	2	3	4	5	6	7
22. I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23. When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
24. I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25. It's okay if there are people who don't like me.	1	2	3	4	5	6	7
26. I am resilient.	1	2	3	4	5	6	7

Appendix O: Phase I- Brief COPE

These items deal with ways you cope with the stress in your life at school. There are many ways to try to deal with problems. These items ask what you do to cope with stressful events in your school life. Obviously, different people deal with things in different ways, but I'm interested in how you try to deal with stressful situations. Each item says something about a particular way of coping. I want to know to what extent you do what the item says. For example: How much or how frequently you do something. Don't answer on the basis of whether it seems to be working or not—just whether or not you do it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

Please remember that no identifying information is being collected and we are unable to identify any of the responses. All your responses remain completely anonymous. Some of the questions (4 and 11) potentially require you to admit to illegal activities. You are under no obligation to answer these questions (or any other questions) if you are uncomfortable doing so. You can select option 5 *Prefer not to Answer* if you would prefer not to answer any specific questions.

Please **TICK** the following number that relates best to you.

1 = I don't do this at all

2 = I do this a little bit

3 = I do this a medium amount

4 = I do this a lot

5 = I prefer not to answer

#	Question	1	2	3	4	5
1	I turn to work or other activities to take my mind off things.					
2	I concentrate my efforts on doing something about the situation I'm in.					
3	I say to myself "this situation isn't real."					
4	I use alcohol or other drugs to make myself feel better.					
5	I get emotional support from others.					
6	I just give up trying to deal with the situation.					
7	I take action to try to make the situation better.					
8	I refuse to believe the situation has happened.					
9	I say things to let my unpleasant feelings escape.					
10	I get help and advice from other people.					
11	I use alcohol or other drugs to help me get through it.					

12	I try to see things in a different light, to make it seem more positive.					
13	I criticise myself.					
14	I try to come up with a strategy about what to do.					
15	I get comfort and understanding from someone.					
16	I give up the attempt to cope.					
17	I look for something good in what is happening.					
18	I make jokes about the situation.					
19	I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.					
20	I accept the reality of the fact that the situation has happened.					
21	I express my negative feelings.					
22	I try to find comfort in my religion or spiritual beliefs.					
23	I try to get advice or help from other people about what to do.					
24	I learn to live with the situation.					
25	I think hard about what steps to take.					
26	I blame myself for things that happened.					
27	I pray or meditate.					
28	I make fun of the situation.					

Appendix P: Phase III- Interview Schedule

Data Collection		**Program Group**	**Control Group**
Phase I:	Pre-test Questionnaires	21 & 22 September 2012	11 October 2012
	Post-test Questionnaires	Throughout November 2012 *(On day 22 of each activity groups program)*	20 November 2012
Phase II:	Program Observations	27 October to 18 November 2012	N/A
Phase III:	Semi-structured Interviews: Data Set 1.	**Interview Group 1:** 20/11/2012 **Interview Group 2:** 21/11/2012 **Interview Group 3:** 22/11/2012 **Interview Group 4:** 28/11/2012	N/A
	Semi-structured Interviews: Data Set 2.	**Interview Group 1:** 27/05/2013 **Interview Group 2:** 28/05/2013 **Interview Group 3:** 29/05/2013 **Interview Group 4:** 30/05/2013	N/A

Appendix Q: Phase III- Semi Structured Interview Guide 1

Information statement to participants before starting:

I want to thank you for taking the time to meet with me today. My name is Casie Chalman and I would like to talk to you about your experiences participating in the *'City to Summit'* outdoor education program. I too have just come off the trip. I was one of the group leaders with Group 9. As one of the components of our overall program evaluation we are assessing resilience attributes and coping in order to capture lessons that can be used to develop effective outdoor education programs in the future.

I would like to remind you that the information retrieved from this interview will be kept confidential and nobody will be named personally. I will ensure all responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. I will be taping the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments.

If at any time during the interview, you feel like you do not want to proceed or answer any questions, please let me know and we will stop. I'm estimating that the interview should last about the length of lunchtime, so if you would like a break, please let me know. During the interview I will ask a series of questions. Each of you will have time to answer these questions. So, we don't speak over each other, we will pass around a talking ball, so when you're ready to talk, you can ask for the ball by popping your hand up. Please take your time, have a think about the question and be honest. Remember, your name will not be attached to the comment if anyway.
Do you have any questions, or would you like me to explain anything before we begin?
Great let's get started then…

Theme 1) Meaningfulness *(Also known as purposeful life)*

1. So I would like you to try and think back to the start of City to Summit. Can you tell me about any goals you set for yourself to achieve during City to Summit?

YES:

- What steps did you take to help you achieve these goals?
- Why do you think you were successful in achieving these goals?

OR

- Why do you think you didn't achieve these goals?

NO: Move to next question.

2. Can you tell me if participating in City to Summit influenced or had an impact on any of your personal values or beliefs?

YES:

- Why do you think that is?
- What made you feel that way?

NO: Move to next question.

Further Questions

- Why do you value those things?
- Do you know your goals for the future? (Work, school, home, sport etc.)
- Do you have any strategies in place to help you achieve these goals?
- Can you explain what steps you took to overcome or conquer your fears or worries about…?
- Can you recall a situation or moment when…?
- Can you describe to me how you felt when…?

Theme 2) Perseverance:

3. Can you tell me about what you found most challenging during the trip?
    - What did you do to help you get through these challenges?
4. Can you recall any particular situation when you think you used determination or self-discipline to help you achieve something?
    - Please explain…
5. Can you describe a situation back at school where you think you might be faced with a similar challenge or difficulty?
    - How do you think would respond if this was to happen now?

Further Questions:

- What were the things that helped you through this?
- How did you end up achieving the desired outcome?
- Why is that?

Theme 3) Self-reliance:

6. Can you describe a situation that springs to mind when you think you showed independence or relied only on yourself to achieve a desired outcome?
    - Is this a normal thing you would do in your school life, when you are trying to achieve something?
7. One of the focuses of City to Summit was looking at self, others and the natural world. Can you tell me something you learned about yourself?
    - Do you think you will use this learning in your life back at school?
8. Did you face any difficulties when you were relying on yourself?
    - How did you deal with it?

Further Questions

- Did you want or think you needed help from someone else?
- How did you overcome it?

Theme 4) Existential Aloneness

9. At the start of the 24 hour solo experience, how did you feel about spending that much time alone?
10. Did your feelings change about spending time alone at any stage during or after the solo?
11. How did you feel about making decisions by yourself, without having to ask or rely on anyone else?
12. How do you feel about spending time alone now?

Theme 5) Equanimity:

13. Can you remember any situation where you became frustrated or angry with yourself another person or a situation during the trip?
14. Why? What happened?
15. How did you resolve the situation?

NO: Move onto next question.

16. Dis you encounter any problems between group members?
    - How was this resolved?
17. During the trip, were you able to control your feeling and emotions when you were put in challenging situations?
    - Can you please tell me more?
    - Can you please explain

Conclusion/Wrap Up:

18. Can you tell me anything you have learnt during the trip that you think you will take back and use in your school life?
19. Do you think you will actually use what you have learnt back in your life at school?

If YES:

- What would it be?

If NO:

- Why do you think that is?

20. Do you think that participating in City to Summit made your more resilient or gave you the tools to cope better with things in your life back at school?

Whole Trip Questions

- If there was one thing that you learnt that you will take from the trip back to your school life, what would it be?
- Do you think you will actually use what you learnt during the outdoor education program back in your school life? Why/why not?
- Were there any new skills that you think you learnt over the course of the trip?
- What were they and why did you think you learnt them?

- Describe an experience in which…
- What did you learn from…?
- Do you think you will use your learning's in your everyday school life? When/where?
- When we get back to "reality" do think thing you will just forget the things you have learnt? Why/ why not?
- What things do you think would help you to actually apply what you have learnt in your school lives?
- Do you think you effectively communicated with others during the trip? Were there any times that you felt you didn't?

Conclusion statement to participants:

- Before we wrap this up, is there anything you would like to add?
- Again I'd like to thank you all for volunteering for this interview. I hope that you have enjoyed reflecting on a fantastic trip. I will be hanging around for a while so if you would like to ask me any further questions, please feel free. I'll be analysing the information you and others gave me and submitting a draft report to the University in a month or so. I'll be happy to send you a copy to review at that time, if you are interested.

Thank you for your time.
Note: There will be no more than 15 open ended questions used during the interview.

Further Questions

- Could you talk to me a bit more about that?
- Why do you think that is?
- What do you think the reason was for that occurring?
- Would you give me an example?
- Can you elaborate on that idea?
- Would you explain that further?
- I'm not sure I understand what you're saying; can you please try explaining it in a different way?
- Is there anything else?
- What method did you use when…?
- What strategies did you use when…?
- During…. how did you feel about…
- What worked well? Please elaborate…
- What would you do differently next time? Please explain why…
- Were there any barriers that you felt you needed to overcome?

All volunteers and parent/guardians have completed consent forms to participant in the interviews.

Themes

Theme 1) Meaningfulness (Also known as purposeful life):

Can be conceptualised as holding the belief that life has a purpose. This is about having an understanding of purpose and goals in life and knowing how you can achieve these goals, even in difficult or challenging situations.

Theme 2) Perseverance:

Is known as persisting despite discouragement. Perseverance is really about applying determination and self-discipline to continue with a situation despite being discouraged by challenges.

Theme 3) Self-reliance:

Is the ability to utilise one's own strengths and experiences to navigate difficult situations. This is about having a positive outlook about yourself, yet still knowing what your personal capacity and limitations are in a situation.

Theme 4) Existential aloneness:

Is having a sense of uniqueness and independence. This is really about being comfortable in your own skin. This is also known as coming home to yourself. This is about being comfortable being alone and being able to make decisions by yourself, without the guidance of other people.

Theme 5) Equanimity:

Has been defined as having a balanced perspective on life. It is also about having an optimistic outlook by being able to moderate extreme responses in difficult situations.

Appendix R: Phase III- Semi Structured Interview Guide 2

Information statement to participants before starting:

Hi guys. How are you all? I want to thank you for taking the time to meet with me again. It's great to see you all. As you know, from your previous discussion, one of the components we were evaluating was resilience attributes and coping in order to capture lessons that can be used to develop effective outdoor education programs in the future.

Just like last time, the information retrieved from this interview will be kept confidential and nobody will be named personally. I will ensure all responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. I will be taping the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. Because we're on tape, please be sure to speak up so that we don't miss your comments.

If at any time during the interview, you feel like you do not want to proceed or answer any questions, please let me know and we will stop. I'm estimating that the interview should last about the length of lunchtime, so if you would like a break, please let me know. During the interview I will ask a series of questions. Each of you will have time to answer these questions. Please take your time, have a think about the question and be honest. Remember, your name will not be attached to the comment in anyway.

Do you have any questions or would you like me to explain anything before we begin?

Before we get started could you please say your name one at a time so I can identify who is speaking on the tape? Thank you.

Great let's get started then…

I want you to all cast your minds back to six months ago when we were rafting the Mitta Mitta River and standing on the top of Australia.

1. What is your most vivid memory of City to Summit that first comes to mind for you?

Experience (positive and negative) and Attitude (positive and negative)

1. So looking back now, how do you feel about CTS?
2. Overall, did you find it a positive or negative experience? Why is that?

Group development

3. How does the Year 11 cohort interact with each other after participating in CTS?
   - Have there been any changes to before?
   - Can you think of any specific examples?
   - What about in your individual classes or during sporting activities?

Relationships (family, friends, teachers/staff)

4. You all mentioned that you made lots of new friends within your groups, how are your relationship now with your group members?
   - Why do you think that is?
5. Did you relationships initially change between your families or friends when you got back home?
   - How did they change?
   - What was different?

6. How are your relationships now? Did they go back to the way they were or did they stay the same?
    - Why do you think that is?

Appreciation

7. Now that you guys are back to "reality" as you called it, how have you gone at remembering the things you appreciated most?
    - Why do you think that is?

Challenges (mentally, physically and perceived)

8. Have you had any big challenges you have had to deal with over the last few months at school?
    - What did you do to help you get through these challenges?
9. Have you had to deal with any challenges between class mates?
    - How was this resolved?
    - What strategies did you use?
    - Were you able to control your feelings and emotions when you were put in challenging situations?
10. Do you think that participating in CTS actually helped you deal with these challenges?

Further Questions:

- What were the things that helped you through this?
- How did you end up achieving the desired outcome?
- Why is that?

Tolerance

11. How are your tolerance levels now that you are back in the school environment?
    - Have they been tested at all?
    - Can you think of a specific situation?
    - How did you deal with this?

Transference

12. Do you think you have put any skills that you learnt in CTS into practice at school?
13. Given that six months has past and you have had a chance to reflect, do you think that participating in City to Summit made your more resilient OR gave you the tools to cope better with things in your life back at school?
14. One of the things we were interested in was if outdoor education programs affect resilience and coping skills, and whether or not they transfer into your lives back at school. Do you think you have actually used any resilience or coping skills that you gained from participating in CTS in your lives back at school?
    - Can you think of any specific examples?

15. Can you tell me anything you have learnt during CTS that you have actually put into practice back at school?
    - Can you give me an example?
16. Was there any follow up lessons, debriefs or sessions in Year 11 to do with CTS?
    - What did you do in these sessions?

Conclusion Statement to Participants

- Before we wrap this up, is there anything you would like to add?
- Again I'd like to thank you all for volunteering for this interview. I hope that you have enjoyed reflecting on a fantastic trip. I will be hanging around for a while so if you would like to ask me any further questions, please feel free. I'll be analysing the information you and others gave me and submitting a draft report to the University in a month or so. I'll be happy to send you a copy to review at that time, if you are interested. Thank you for your time.

Further Questions

- Do you remember the one thing you said you that you learnt that you will take from the trip and utilise it back to your school life? Do you think you have done that?
- Describe an experience in which…
- What did you learn from…?
- Do you think you will use your learning's in your everyday school life? When/where?
- Could you talk to me a bit more about that?
- Why do you think that is?
- What do you think the reason was for that occurring?
- Would you give me an example?
- Can you elaborate on that idea?
- Would you explain that further?
- I'm not sure I understand what you're saying; can you please try explaining it in a different way?
- Is there anything else?
- What method did you use when…?
- What strategies did you use when…?
- During…. how did you feel about…
- What worked well? Please elaborate…
- What would you do differently next time? Please explain why…
- Were there any barriers that you felt you needed to overcome?

Note: There will be no more than 15 open ended questions used during the interview

Themes

Based on answers from participants in Phase 2, questions in the above Phase 3 interview will be guided around the following areas of interest:

- Experience (positive and negative) and Attitude (positive and negative)
- Group development
- Relationships (family, friends, teachers/staff)
- Appreciation
- Challenges (mentally, physically and perceived)
- Tolerance
- Transference

(All volunteers and parent/guardians have completed consent forms to participant in the interviews)

Appendix S: Cycle 1- All Coded Themes

Name of the Theme	Number of Interview Sources	Number of Times Referenced
Coping (ALL Types)	8	87
Coping Dimensions	0	0
Active Avoidance	0	0
Avoidance	3	3
Negative Coping	4	5
Negativity	2	5
Not Coping (Avoidance)	4	12
Emotion-focused	0	0
Acceptance	3	4
Adaption	2	2
Attitude	7	49
Positive Thinking	7	26
Positive Coping	8	49
Putting things into Perspective	1	2
Problem Focused	0	0
Planning	4	7

Religious / Denial	0	0
Denial	2	2
Experience	8	49
Balance between Challenge and fun	5	11
Negative Experience	1	1
Positive Experience	8	70
Fun	3	14
Memories: most memorable moments	8	31
Previous Experience	7	17
Boarder	4	10
Increased Exposure to Outdoor Context	2	3
Shared Experience	5	18
Other	0	0
Camp Leaders Impact	7	23
Camp Leaders Negative Impact	2	2
Camp Leaders Positive Impact	2	6
Feelings	6	16

Leadership	4	13
Programming Issues	5	15
Suggestions	3	11
Support for staff	2	6
Thoughts on why we do the trip	4	6
What is resilience	3	5
Relationships	8	90
Conflict	2	7
Group Development	5	38
Trust Development	3	4
No Change	3	5
Peer pressure: Left out	4	9
Positive	6	21
Positive changes in family relationships	8	26
Stories from others	1	1
Resilience Attributes	0	0
Equanimity	0	0

Tolerance	7	30
Lack of tolerance	3	8
Existential Aloneness	0	0
Solo Existential Aloneness (2)	6	29
Perseverance	3	6
Determination and Self discipline	4	17
Purposeful Life_ Meaningfulness	0	0
Goal Setting (2)	5	12
Personal Learnings (Personal Reflection)	8	76
Confidence	2	2
Subconscious	3	8
Sense of Achievement	7	16
Self-Reliance	3	18
Independence	6	35
Resilience Development	0	0
Challenge	8	103
Character Building	3	13

Different sort of challenge	3	7
Mentally Challenging	7	16
Not Challenging Enough	7	23
Make more challenging	4	5
Perceived Challenge	8	38
Physically Challenging	7	22
Too challenging	2	2
Empathy	3	6
Lack of empathy	2	3
Sharing knowledge and experiences with year level below	2	3
Appreciation and Gratitude	8	57
Material Items	7	22
Nature	3	7
Others	5	14
Others opinions	2	5
Mindfulness / Awareness	0	0
Electronics- reduction in use (2)	5	8

Resilience	8	40
How much you were challenged	1	3
Mental resilience	2	3
Outdoors specific	1	1
Physically more resilient	1	1
Service to Others	0	0
Actions (Helping or Assisting) (2)	3	11
Transference	8	112
Lack of remembering_ reflection	4	12
Learnings dissipated	5	30
Appreciation dissipated 6 months later	2	2
No changes in resilience or learnings	2	7
Lack of follow-up/ Reflection or Awareness	4	9
Possible transference of learnings	6	87
Struggles to make links between contexts	5	27
Transference of skills in same setting	3	3

Appendix T: Cycle 2- First-Order and Second-Order Themes Breakdown

Higher Order Themes Breakdown				
Original Theme Name (Parent Code)	**Original Theme Name (Child Code)**	**Second-Order Theme Breakdown**	**First-Order Theme Breakdown**	**Number of times referenced**
Acceptance		Coping Dimension	Emotion-focused Coping	4
Actions (Helping or Assisting)		Resilience Development	Service (doing things for others)	11
Adapt or adaption		Coping Dimension	Emotion-focused Coping	2
Appreciation		Resilience Development	Gratitude	57
Appreciation	Appreciation dissipated after 6 months later	Transference	Learning's dissipated	2
	Material Items	Resilience Development	Gratitude	22
	Nature	Relationship	Relationship with Natural Environment	7
	Others	Resilience Development	Gratitude	14
	Others opinions	Resilience Development	Gratitude	5
Attitude		Coping Dimension	Positive Coping (reframing)	49
Avoidance		Coping Dimension	Active Avoidance	3
Balance between Challenge and fun		Experience	Experience	11
Boarder		Experience	Previous Experience	10
Camp Leaders Impact		Other	Camp Leaders Impact	23
	Camp Leaders Negative Impact	Other	Camp Leaders Impact	2

	Camp Leaders Positive Impact	Other	Camp Leaders Impact	6
Challenge		Challenge	Challenge	103
	Different sort of challenge	Challenge	Challenge	7
	Mentally Challenging	Challenge	Challenge	16
	Not Challenging Enough	Challenge	Challenge	23
	Perceived Challenge	Challenge	Challenge	38
	Physically Challenging	Challenge	Challenge	22
	Too challenging	Challenge	Challenge	2
Character Building		Challenge	Challenge	13
Conflict		Relationships	Conflict	7
Coping		Coping Dimension	All Types Together	87
	Negative Coping	Coping Dimension	Active Avoidance	5
	Positive Coping	Coping Dimension	Emotion-focused Coping	49
	Putting things into Perspective (Reframing)	Coping Dimension	Emotion-focused Coping	2
Denial		Coping Dimension	Religious/ Denial	2
Determination and Self discipline		Resilience Attribute	Perseverance	17
Electronics- reduction in use		Resilience Development	Mindfulness/ Awareness	8
Empathy		Resilience Development	Empathy	6
Experience		Experience	Experience	49
	Negative Experience	Experience	Negative Experience	1
	Positive Experience	Experience	Positive	70

			Experience	
	Shared Experience	Experience	Shared Experience	18
Feelings		Other	Feelings	16
Fun		Experience	Positive Experience	14
Goal Setting		Resilience Attribute	Purposeful/ Meaningfulness	12
Group Development		Relationships	Group Development	38
Increased Exposure to Outdoor Context		Experience	Previous Experience	3
Independence		Resilience Attribute	Self-Reliance	35
Lack of empathy		Resilience Development	Empathy	3
Lack of remembering or reflection		Transference	Lack of remembering or reflection	12
Leadership		Other	Leadership	13
Make more challenging		Resilience Development	Challenge- Not Challenging Enough	5
Memories- most memorable moments		Experience	Positive Experience	31
Negativity		Coping Dimension	Active Avoidance	5
No changes in Resilience or learning's		Transference	No changes in Resilience or learning's	7
No Follow-up, Reflection or Awareness		Transference	No Follow-up, Reflection or Awareness	9
Not Coping (Avoidance)		Coping Dimension	Active Avoidance	12
Perseverance		Resilience Attribute	Perseverance	6
Personal Learning's (Personal Reflection)		Resilience Attribute	Purposeful Life/ Meaningfulness	76

	Confidence	Other	Personal Learning's (Personal Reflection)	2
Planning		Coping Dimension	Problem Focused	7
Positive Thinking		Coping Dimension	Emotion-focused Coping	26
Previous Experience		Experience	Previous Experience	17
Programming Issues		Other		15
Relationships		Relationships	Relationships	90
	No Change in Relationships	Relationships	Relationships	5
	Peer pressure -Left out	Relationships	Relationships	9
	Positive	Relationships	Relationships	21
	Positive changes in family relationships	Relationships	Positive	26
	Trust Development	Relationships	Group Development	4
Resilience		Resilience Development	Resilience	40
	How much you were challenged	Resilience Development	Resilience	3
	Mental resilience	Resilience Development	Resilience	3
	Outdoors specific	Resilience Development	Resilience	1
	Physically more resilient	Resilience Development	Resilience	1
Self Reliance		Resilience Attribute	Self Reliance	18
Sense of Achievement		Resilience Attribute	Purposeful Life/ Meaningfulness	16
Sharing knowledge and experiences with year level below		Resilience Development	Empathy	3

Solo- Existential Aloneness		Resilience Attribute	Existential Aloneness	29
Stories from others		Relationships	Stories from others	1
Struggles to make links between contexts		Transference	Struggles to make links between contexts	27
Subconscious		Resilience Attribute	Purposeful Life/ Meaningfulness- Personal Learning's	8
Suggestions		Other	Programming Issues	11
Support for staff		Other	Programming Issues	6
Thoughts on why we do the trip		Other	Thoughts on why we do the trip	6
Tolerance		Resilience Attribute	Equanimity	30
	Lack of tolerance	Resilience Attribute	Equanimity- Tolerance	8
Transference		Transference	Transference	112
	Learning's dissipated	Transference	Transference	30
	Possible transference of learning's	Transference	Transference	87
	Transference in same setting	Transference	Transference	3
What is resilience?		Other	What is resilience?	5

Appendix U: Cycle 3- Major Themes Breakdown

Theme Number	Major Theme	Organising Theme	First-Order Theme Clusters
1	Challenge	Challenge (Type of Challenge)	Character building
			Different sort of challenge
			Mentally challenging
			Not challenging enough
			Perceived challenge
			Physically challenging
			Too challenging
2	Perception of the experience	Experience /Memorable Moment (type of experience)	Balance between challenge and fun
			Negative Experience
			Positive Experience
			Previous Experience
			Shared Experience
			Feelings
3	Post-program understanding	Resilience Development and Personal Development (type of learning)	Empathy
			Gratitude
			Mindfulness
			Resilience
			Service to others

			Leadership
			Thoughts on why we do the trip
			What is resilience?
4	Relationships	Relationships (social and environmental)	Conflict
			Group development
			No change
			Peer pressure
			Positive
			Positive changes in family relationships
			Camp leaders impact
			Relationship with natural environment
			Stories from others
5	Transference	Transference (type of application)	Lack of remembering
			Leanings dissipated
			No changes in resilience
			No follow-up: reflection
			Possible transference
			Struggles to make links between contexts

			Transference in the same setting
			Programming Issues
6	Response to challenge	Coping (all types)	
		Coping Dimension	Active avoidance
			Emotion-focused
			Problem-focused
			Religious/Denial
		Resilience Attributes	Equanimity
			Existential Aloneness
			Perseverance
			Purposeful life
			Self-reliance
			Tolerance
			Determination
			Subconscious

Appendix V: Group 9 Consent for Use of Photos

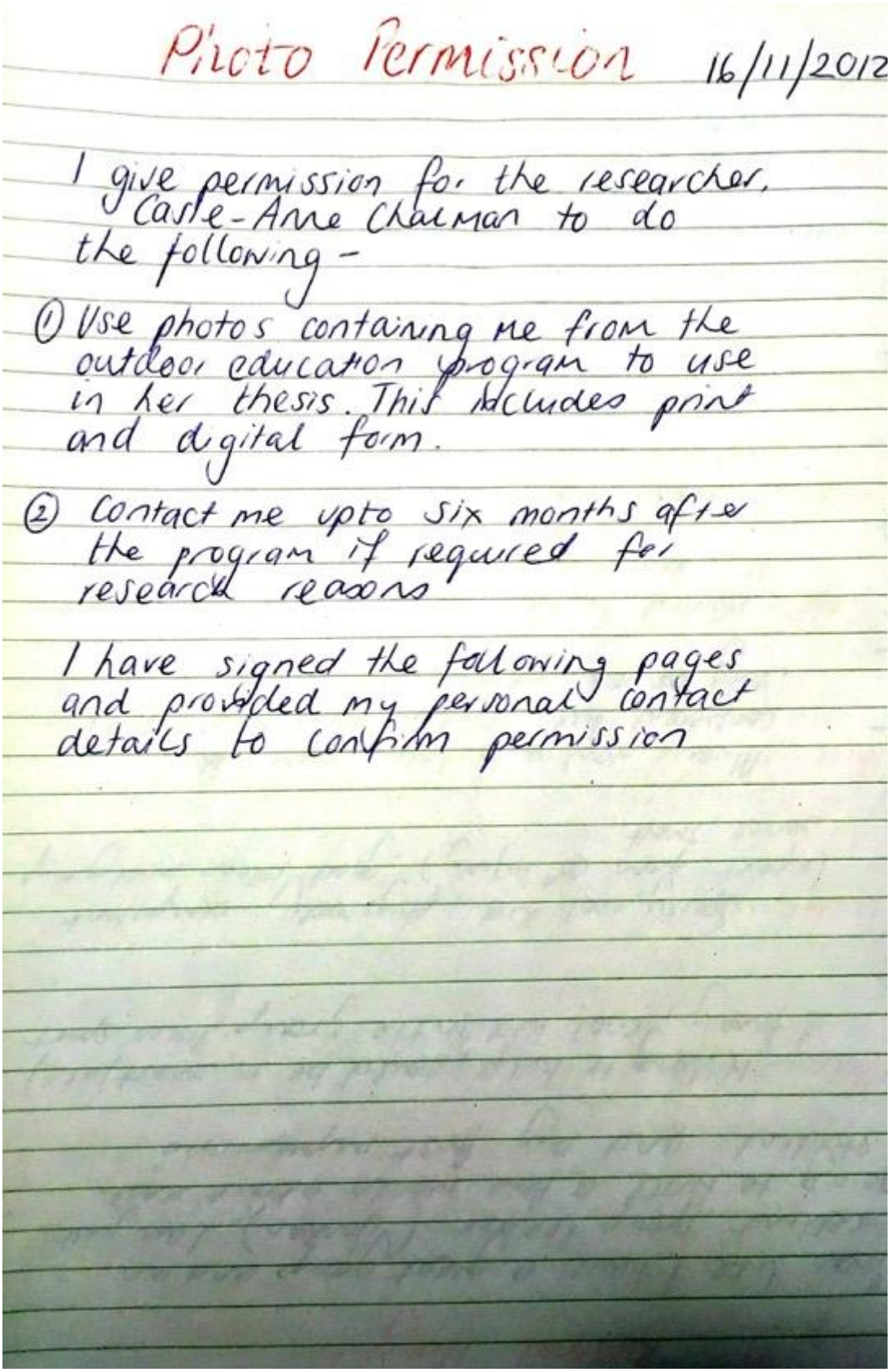


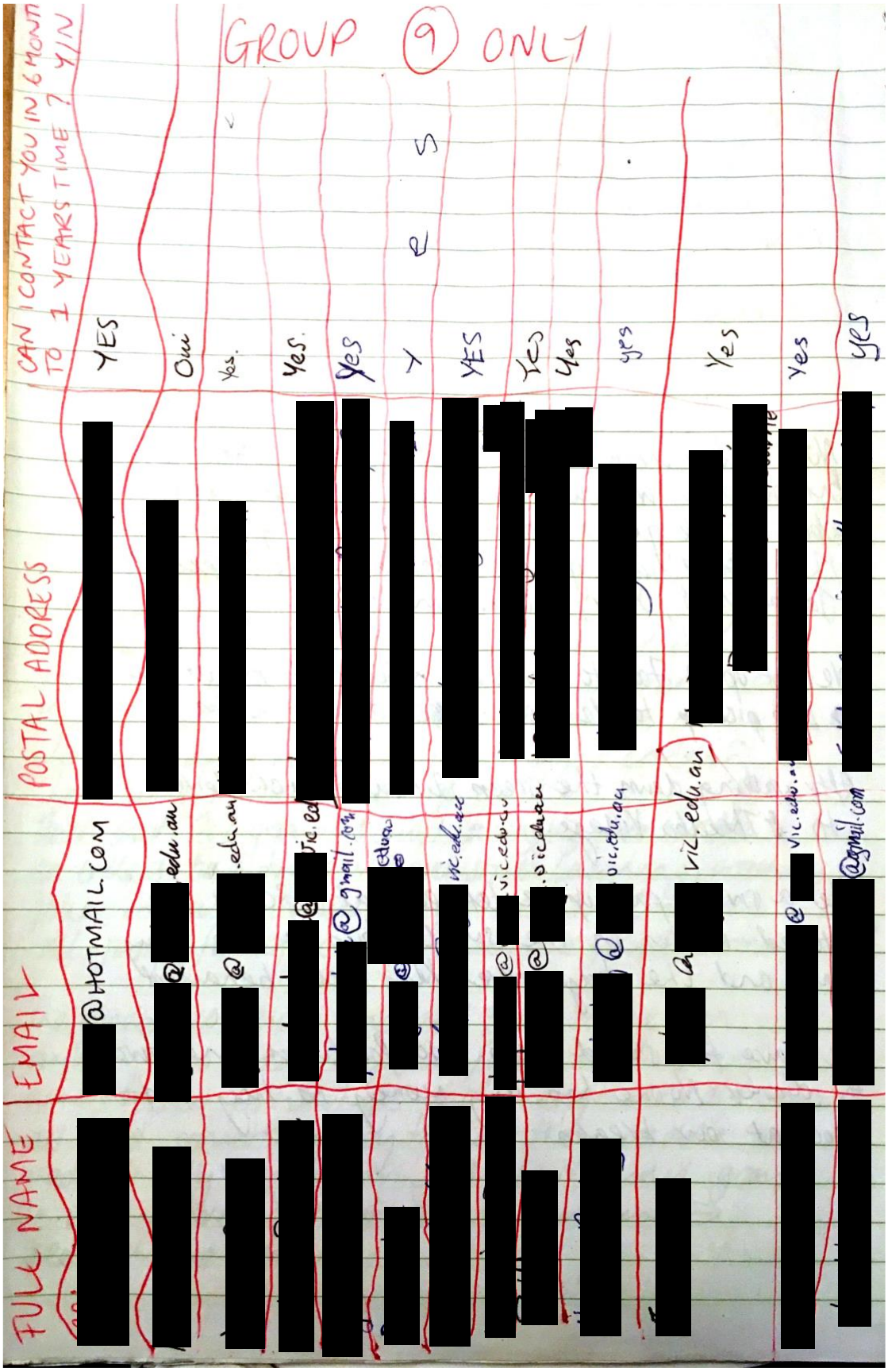
Photo Permission 16/11/2012

I give permission for the researcher, Castle-Anne Chalmar to do the following -

① Use photos containing me from the outdoor education program to use in her thesis. This includes print and digital form.

② Contact me upto six months after the program if required for research reasons

I have signed the following pages and provided my personal contact details to confirm permission


GROUP (9) ONLY
FULL NAME
EMAIL
POSTAL ADDRESS
CAN I CONTACT YOU IN 6 MONTH TO 1 YEARS TIME ? Y/N
YES
Oui
Yes.
Yes.
Yes
Y
YES
Yes
Yes
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Yes
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YES
@HOTMAIL.COM
.edu.au
.edu.au
@gmail.com
@vic.edu.au
@vic.edu.au
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@vic.edu.au
@gmail.com

Appendix W: Progressive Levels of Difficulties of Adventure Activities

Day	Activity	Level of Difficulty
0	Initiative and team building activities	Low
1	Travel day	Low
2	Bushwalking	Low to medium
3	Bushwalking	Medium
4	Bushwalking	Medium
5	Bushwalking	Medium
6	Whitewater rafting	Medium to hard
7	Whitewater rafting	Medium to hard
8	Whitewater rafting	Medium to hard
9	Mountain biking	Hard
10	Mountain biking	Hard
11	Solo	Hard
12	Bushwalking	Medium to hard
13	Bushwalking	Medium to hard
14	Bushwalking	Medium to hard
15	Bushwalking	Medium to hard
16	Bushwalking	Medium to hard
17	Bushwalking	Medium to hard
18	Bushwalking	Medium to hard
19	Summit day: bushwalking	Medium
20	Walk and travel day	Low
21	Debrief day at school with staff	
22	Phase III interviews collected	

Note. The challenge levels are an overall average based on the activities presented in the program outline.