

# ***Student Experiences of E Tū Tāngata at School: A Collaborative Evaluation and Pilot Test of Effects on School Climate and Student Outcomes***

A thesis submitted in partial fulfilment of the requirements for the Degree of Master of Science in Child and Family Psychology (CFPY695) at the University of Canterbury

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University of Canterbury

2023

# Table of Contents

Table of Contents.....	2
List of Tables .....	5
List of Figures .....	6
Acknowledgements.....	7
Abstract.....	9
Chapter One - Introduction and Literature Review .....	11
1.1 Schools as Contexts for Development .....	11
1.2 School Climate.....	13
1.2.1 Introduction.....	13
1.2.2 Definition .....	14
1.2.3 Multidimensionality of School Climate .....	16
1.2.4 Theoretical Perspectives of School Climate .....	18
1.2.5 Influence of School Climate on Student Outcomes .....	24
1.2.6 Improving School Climate.....	28
1.3 E Tū Tāngata .....	32
1.3.1 What is E Tū Tāngata? .....	32
1.3.2 The Three Mindsets .....	36
1.3.3 Theory of Change Development.....	39
1.3.4 E Tū Tāngata's Theory of Change .....	40
1.3.5 Implementing E Tū Tāngata as a Way to Improve School Climate .....	44
1.3.6 E Tū Tāngata at School.....	46
1.4 E Tū Tāngata's Proposed Outcomes.....	48
1.4.1 School Belonging .....	48
1.4.2 Positive Risk-taking.....	52
1.4.3 Responses to Failure.....	54
1.5 The Present Study .....	57
1.5.1 Collaborative Evaluation.....	58
1.5.2 Research Aims .....	59
1.5.3 Contributions from this research .....	59
Chapter Two – Methods .....	61
2.1 Study Design.....	61
2.2 Recruitment.....	62

2.3 Participants.....	63
2.4 Survey Development .....	64
2.5 Procedure .....	66
2.6 Ethical Approval .....	68
2.7 Data Analysis .....	68
2.7.1 Quantitative Analysis.....	69
2.7.2 Qualitative Analysis .....	70
Chapter Three – Results.....	72
3.1 Scale Development and Psychometric Properties .....	72
3.1.1 Principal Component Analysis of Independent Variables .....	73
3.1.2 Principal Component Analyses of Dependent Variables.....	78
3.1.3 Descriptive Statistics of the Subscale Composites .....	84
3.2 Group Differences .....	87
3.3 Associations between Independent and Dependent Variables.....	87
3.3.1 Correlation Matrixes.....	87
3.3.2 Multiple Regression Analysis .....	90
3.3.3 Exploring Moderation Effects .....	94
3.4 Summary of Quantitative Results .....	95
3.5 Qualitative Results .....	96
3.5.1 Results of Individual Items.....	97
3.5.2 Identified Themes.....	101
Chapter Four – Discussion .....	107
4.1 Research Aim One: The ETT Student Survey.....	107
4.1.1 Quantitative Aspects .....	108
4.1.2 Qualitative Aspects.....	111
4.2 Research Aim Two: Associations between ETT mindsets and Students’ Outcomes ...	113
4.2.1 ETT and School Belonging.....	113
4.2.2 ETT and Positive Risk-Taking.....	115
4.2.3 ETT and Student Approaches to Learning .....	115
4.3 Research Aim Three: Reflections on ETT and the Perceived Changes.....	116
4.4 Current Results and E Tū Tāngata’s Theory of Change .....	119
4.5 Practical Implications .....	121
4.5.1 Implications for ETT .....	121

4.5.2 Implications for the Participating School .....	123
4.6 Study Strengths .....	124
4.7 Limitations and Future Research Suggestions .....	125
4.8 Conclusion .....	127
References .....	129
Appendix A: Ethical Approval.....	143
Appendix B: Parent/Caregiver Recruitment Email (sent by the School Principal) .....	144
Appendix C: Parent/Caregiver Information Sheet and Consent Form .....	145
Appendix D: Student Information Sheet and Assent Form .....	148
Appendix E: Student Recruitment Flyers .....	150
Appendix F: Student Survey Items and their Sources.....	152

## List of Tables

<b>Table 3.1</b> <i>Descriptive statistics and results from a principal components analysis of items assessing student perceptions of the E Tū Tāngata mindsets at the participating school.....</i>	77
<b>Table 3.2</b> <i>Descriptive statistics and results from a principal components analysis of items assessing the way students perceive and evaluate E Tū Tāngata and its impact .....</i>	80
<b>Table 3.3</b> <i>Descriptive statistics and results from a principal components analysis of items assessing student outcomes as a result of E Tū Tāngata .....</i>	83
<b>Table 3.4</b> <i>Descriptive Statistics of Subscale Composite Variables .....</i>	86
<b>Table 3.5</b> <i>Bivariate Correlations between Composite Variables .....</i>	89
<b>Table 3.6</b> <i>Multiple Regression Analysis of Students Succeed Together and School Social Inclusion as Predictors of Students' Subjective Evaluation of E Tū Tāngata .....</i>	92
<b>Table 3.7</b> <i>Multiple Regression Analysis of the E Tū Tāngata Variables as Predictors of School Belonging and Acceptance .....</i>	93
<b>Table 3.8</b> <i>Multiple Regression Analysis with Valued-Supported and Valued-Respected Predicting Insecure Response to Failure .....</i>	94
<b>Table 3.9</b> <i>Identified Overarching Themes and their Contributing Sub-Themes presented across Qualitative Items.....</i>	102

## List of Figures

<b>Figure 1.1</b> <i>Systems View of School Climate</i> .....	23
<b>Figure 1.2</b> <i>E Tū Tāngata Theory of Change for the Education Sector</i> .....	41
<b>Figure 3.1</b> <i>Scree Plot of Items Measuring the E Tū Tāngata Predictor Variables</i> .....	74
<b>Figure 3.2</b> <i>Scree Plot of Items Measuring Students' Reflections of E Tū Tāngata</i> .....	78
<b>Figure 3.3</b> <i>Scree Plot of Items Measuring the proposed E Tū Tāngata Outcomes</i> .....	81
<b>Figure 3.4</b> <i>Box and Whisker Plot of the Student Survey Composite Variables</i> .....	86

# Acknowledgements

There are some key people I wish to thank for their relentless support and assistance in my completing this thesis. Without them, I could not have reached this milestone and for that, I am forever grateful.

First, I must extend a massive thank you to my primary supervisor, Dr Myron Friesen. Myron, your patience, guidance, and expert knowledge have been instrumental throughout my thesis journey, and I am so grateful for all you have done and taught me. Without your valuable feedback, attention to detail and mentorship, this project would not be the piece of work it has become. I also would like to acknowledge the roll you played three years ago now in introducing me to the Child and Family Psychology pathway and in inspiring me to become the trainee psychologist I am today.

I would like to acknowledge Dr Veronica O'Toole, who I've had the pleasure of working with several times over the past few years. Ronnie, I am so grateful for your willingness to be my secondary supervisor and for the excellent feedback and encouragement you have provided throughout this experience.

To the E Tū Tāngata team, thank you for your commitment to making Aotearoa a more positive and supportive place, and for providing me with the opportunity to conduct this research project. Your cooperation and willingness to collaborate on this evaluation have not gone unrecognised and I wish you all the best with this E Tū Tāngata journey.

I want to acknowledge the principal, students, and staff of the participating school, and specifically acknowledge the students who participated in the survey. Thank you for your engagement and the time you set aside to share your experiences and opinions with me and our research team.

Last, but most certainly not least, I'd like to thank my incredible family and friends who have continued to support, motivate, and encourage me over the past 12 months. Specifically, I'd like to thank both my partner, Kahlil, and my wonderful Mum for always being there for me. Thank you for listening to me ramble on about this project for months on end, and for always believing in me and my ability to complete this momentous achievement. I could not have come this far without you both.



## Abstract

Schools are complicated developmental contexts, and many different aspects of the school environment can influence how students experience school life, interact with others, and generally feel within that environment. E Tū Tāngata is a new initiative within Aotearoa New Zealand that aims to address the country's alarming mental health challenges, at a cultural level, by addressing the social norms and values associated with Tall Poppy Syndrome.

Within schools, E Tū Tāngata aims to improve the school's climate by shifting how students communicate and interact with one another through the promotion of three key mindsets – You Have Value, We Succeed Together, and Others Matter. This mixed-methods pilot study is one of the first attempts to evaluate the implementation and efficacy of E Tū Tāngata in a target school in Canterbury. This study had three aims: (a) to examine the psychometric properties of a retrospective survey of student experiences with E Tū Tāngata and hypothesised outcomes; (b) to examine how the school's integration of the E Tū Tāngata mindsets is associated with students' sense of belonging to the school, positive risk-taking behaviours, and response to failure; and (c) to investigate how students reflect on the changes they have experienced personally and seen within their classroom and school.

Sixty-six students from years 6, 7, and 8 completed the survey. Psychometric testing found acceptable reliability for over half of the survey subscales and preliminary evidence for convergent validity, alongside a considerable need for redevelopment of other aspects of the survey. The vast majority of students evaluated the initiative positively and those who perceived better integration of the E Tū Tāngata mindsets also reported a greater sense of school belonging and connection to their peers. The results of this pilot test remain relatively consistent with the current literature on school climate and school belonging and provide preliminary support for E Tū Tāngata's theory of change model. In light of the

strengths and limitations of this pilot test, suggestions are made for future investigations into E Tū Tāngata, including opportunities for further survey development and evaluation strategies which should facilitate a better understanding of E Tū Tāngata's effect on students and schools.

# Chapter One - Introduction and Literature Review

Young people spend the large majority of their waking hours each week at school. From the age of 5 to 18, children tend to spend more time in a school environment than they do at home or with their families - falling second only to the length of time they spend in their beds each night (Eccles & Roeser, 2011). According to Rutter (1979), this adds up to over 15,000 hours over their lifetime. Given this, schools are a defining context within which development occurs and hold a distinct position to significantly influence young people's values, learning, and developmental trajectory.

## 1.1 Schools as Contexts for Development

The quality and nature of the school environment, as well as how students feel when they are present within it, all play a role in how young people engage and develop at school (Eccles & Roeser, 2006, 2011). As a key context for development within a young person's life, schools ideally should position themselves in a way which promotes positive development for its students. Eccles and Roeser (2011) assert that schools affect every aspect of a person's development. From their cognitive ability and academic achievement to a student's emotional and psychological wellbeing, and their ability to interact with others, schools influence how young people learn to think, feel, and behave both in and out of school.

Schools can be recognised as formal, social institutions (Eccles & Roeser, 2006). They each have their own characteristics and qualities, which together influence student development. No two schools will influence students in the same way, no matter how similar the schools may seem. Rather than focus on how demographic characteristics influence students' school experiences, researchers have transitioned to placing greater

attention on how organisational and social processes, enacted by school staff and students, influence student and their development (Eccles & Roeser, 2006).

According to Eccles and Roeser's (2011) review, three dimensions of the school environment influence student development, including (a) the teacher and classroom environment, (b) school-wide characteristics, and (c) community-wide influences and education policies. The first, and arguably greatest direct influence on student development comes from the classroom dimension. Within this, Eccles and Roeser (2011) focus on how teachers, their qualifications, practices and beliefs, as well as their relationships with students influence how young people engage in the classroom and learn. When teachers are well-qualified, responsive to students' needs and prioritise positive student-teacher relationships, students are more likely to enjoy school, engage in learning and benefit from the opportunities it provides; thus, leading to more positive development. The second-dimension places importance on whole-school characteristics, including school culture, demographics of the student body, and school safety. Eccles and Roeser propose that these school-wide factors affect student development by altering school culture and how members of the school community feel when they are present within the school grounds, how well students feel they fit in with the school's characteristics, how representative the student body is of themselves, and how safe they feel physically and psychologically. Lastly, the authors emphasise that district-wide policies and practices around school size, staff-student ratios, assessment, school transitions, and the extra-curricular activities available, also influence how the school operates, and thus how students engage with the school, and ultimately learn and develop.

Interestingly, while the review by Eccles and Roeser (2011) does not explicitly discuss the concept of school climate it could be argued that many of the school-wide characteristics listed by these authors align with the key aspects of school climate (Cohen, McCabe, et al., 2009; Rudasill et al., 2018; Wang & Degol, 2016). School climate research has grown considerably with numerous studies being conducted in North America, the United Kingdom, and Australia in the past 20 years with several different conceptual models or frameworks being produced that emphasize slightly different aspects of the school environment as important for school climate. The present study aimed to build upon this research by examining an initiative in Aotearoa New Zealand that is trying to promote a positive and inclusive social-emotional climate in schools.

## 1.2 School Climate

### 1.2.1 Introduction

The ways in which a school is perceived and experienced by its members may be conceptualised as the school's climate (Cohen, McCabe, et al., 2009; Loukas, 2007; Rudasill et al., 2018; Thapa et al., 2013). McGiboney (2016), illustrates how a school's climate remains a key memory for students long after they have left school. The author asked adults to reflect upon their time at school and found that people rarely recall their class schedules or in what room number they had maths, but they do remember how many friends they had, what their teachers were like, how strict the rules were, and ultimately, how much they did or did not enjoy school. From this description, it is clear to see that the elements of school life which stick with us, long after we leave, are those which are most socially and emotionally driven. According to McGiboney, this is the essence of school climate.

### 1.2.2 Definition

School climate represents almost every dimension of the school experience, as lived by each individual member of the school community (Loukas, 2007; Thapa et al., 2013; Wang & Degol, 2016). School climate is a multidimensional construct which provides insight into the different aspects of school life, including physical, emotional, social, and academic dimensions (Cohen, McCabe, et al., 2009; Loukas, 2007; Marraccini et al., 2020; Suldo et al., 2012; Voight & Nation, 2016). Students, teachers, school administration staff, principals and even parents, experience and contribute to a school's climate each and every day. School climate reflects students', teachers' and school staffs' experiences and perceptions of the school; its safety, its accepted values, norms and practices, and the nature of the relationships within the environment (Cohen, McCabe, et al., 2009; National School Climate Center, 2021; Rudasill et al., 2018). In the most abstract definitions, school climate is the "quality and character of school life" (Cohen, McCabe, et al., 2009, p. 182) and, when positive, may be referred to as the "heart and soul of the school" (Frieberg & Stein, 1999, p. 11). School climate contributes to how individuals feel about the school and shapes how students and teachers regard the teaching, learning, and interactions they experience, and makes up the majority of what people remember about a school, long after they have left (Frieberg & Stein, 1999; McGiboney, 2016).

Cohen and colleagues (Cohen, 2009; Cohen, McCabe, et al., 2009) propose that school climate is a group phenomenon which unites individual experiences. It accounts for experiences at all levels of the school system, from school-wide to those of individual classrooms, peer groups, and extra-curricular activities (Schneider & Duran, 2010). School climate is experienced and interpreted differently by each member of the school's community (Loukas, 2007) and unique individual experiences will contribute to how the

school's climate is understood and perceived. Given this, school climate is typically measured at an individual level and therefore should be considered as peoples' individual perceptions of what is happening at the group or school-wide level.

Consistently within the academic literature, the complexity and breadth of school climate is recognised (Eugene et al., 2021; Suldo et al., 2012). As there remains contestation around the exact definition and parameters of school climate (Loukas, 2007), researchers and educators at times conflate school climate with similar, yet distinct, concepts; for example, school culture, and school belonging (Rudasill et al., 2018).

School climate is often confused with or theoretically positioned alongside other similar concepts. Two of these are school culture and school belonging. Similar to school climate, school culture is difficult to define; however, over the years researchers have attempted to solidify this concept to make sense of its role within schools (Erickson, 1987). Unlike school climate, school culture refers to the traditions, beliefs, values, stories, and norms which are passed through generations of school attendees (Deal & Peterson, 2003; Stolp, 1994). It is the underlying values, assumptions and patterns which often go unnoticed but influence how students think and act at school (Erickson, 1987; Stolp, 1994). Jerald (2006) explains that school culture provides a constant stream of signals which subtly enforce the expectations and roles of students. For example, if a school prioritises engagement in sports, has a culture of athleticism, and defines success based on the number of trophies, or titles the school possesses, then it is likely that students will receive subtle signals of an expectation for them to engage and succeed in sports. Whereas schools which value academia, the arts, positive peer culture, or being ostentatious will expect different things of their students. A school's culture stems from the combination of the

school's vision, history, and values, and is strengthened by how closely the school's actions, traditions and outcomes align with that vision (Jerald, 2006).

School belonging, conversely, describes the depth of connection people feel to their school, teachers, and peers (Allen et al., 2018; McGiboney, 2016). A section of this chapter is dedicated to defining school belonging and linking it to school climate (see Section 1.4.1 below); however, to differentiate it from these similar terms in this early introduction, a brief description is provided. School belonging, unlike school climate or school culture, is individual to each student and staff member and is emotive. School belonging refers to the ways in which students feel connected to and supported and valued by those at their school (Allen et al., 2018; Chapman et al., 2013; Goodenow & Grady, 1993; Korpershoek et al., 2020; McGiboney, 2016; Slaten et al., 2016).

While appearing similar, school climate, school culture, and school belonging can be seen as distinct concepts which hold unique purposes or roles within a school system. School culture provides present and future school communities with the histories, traditions, and expectations of a school, which cumulate to direct the school's ethos. School climate influences the school community by shaping the social-emotional and learning environment of the school, consequently altering how school life is experienced by each individual member. Finally, school belonging is the emotional connection members feel to the school, as a result of their experiences with the school's climate and culture.

### 1.2.3 Multidimensionality of School Climate

School climate is generally recognised as a multidimensional concept within the academic literature (Cohen, McCabe, et al., 2009; Loukas, 2007; Rudasill et al., 2018; Suldo et al., 2012; Voight & Nation, 2016). Yet there is little consistency among researchers in the dimensions of school climate, nor how these dimensions should be labelled and grouped



(Grazia & Molinari, 2021; Rudasill et al., 2018; Wang & Degol, 2016). Two of the most frequently referenced conceptualisations of school climate and its multidimensionality are Cohen and colleagues' (2009, p. 184) *Four Dimensions of School Climate* and Wang and Degol's (2016, p. 318) *Conceptualisation and Categorisation of School Climate*.

Cohen, McCabe, et al. (2009, p. 184) suggest that there are four essential elements of school climate. These are *safety, teaching and learning, relationships, and environment-structural* dimensions. Within each of the domains, the authors suggest several sub-domains. For example, the *safety* domain covers the presence of clear, consistent school rules, physical safety, and social-emotional safety. *Teaching and learning* captures the quality of teachers and their teaching practices, the school's leadership, and the curriculum and opportunities offered within the school. *Relationships* includes sub-dimensions of respect for diversity, morale, connectedness, and collaboration; and lastly, the *environment-structural* dimension accounts for the number and quality of resources and spaces available within the school.

Wang and Degol (2016) similarly proposed a four-dimensional conceptualisation of school climate. While similar to Cohen et al.'s (2009) conceptualisation, Wang and Degol utilise different titles for their domains and include 13 slightly modified sub-domains. The authors (p. 318) present school climate as the sum of four elements; *safety* (physical and social/emotional safety, and discipline and order), *community* (the nature of relationships within the school), *academic* (curricula, teacher training and teaching practices), and *institutional/environmental* (organisational and physical elements of the school).

A recent review, published by Grazia and Molinari (2021), compared over 100 papers measuring school climate in hopes to examine how different researchers and models divide school climate into relevant and related dimensions. Results of their review showed that the

most consistently recognised dimensions of school climate are those related to school safety and school relationships (Grazia & Molinari, 2021). Over half of the studies reviewed, explicitly named a component focusing on the quality of relationships between students, teachers, and school staff; and a large number also recognised the important role physical and emotional safety plays in influencing school climate (Grazia & Molinari, 2021). Grazia and Molinari (2021) attribute the inconsistent application of other school climate elements to the fact that researchers often adapt or adopt different elements, for their studies depending on the aims or expected outcomes, rather than using a pre-existing model. This contributes to the inconsistency across definitions of school climate and causes confusion in what aspects of school life actually make up and influence school climate.

Despite this, school climate is consistently recognised as a multi-dimensional construct made up of several different factors. While it has been encouraged that future research dedicates time to converging these different conceptualisations and striving for a shared model (Grazia & Molinari, 2021), this study shall consider the key aspects of school climate to fall into four domains as directed by Cohen, McCabe, et al. (2009) and Wang and Degol (2016), including safety, relationships, the physical environment, and the teaching curriculum of the school.

#### 1.2.4 Theoretical Perspectives of School Climate

School climate is by no means a new concept. Over 100 years ago, Arthur Perry (Perry, 1908), a New York school principal published a book, titled *Management of a City School*, in which he coined and signified the concept of school climate. In his text, Perry (1908) proposed that a school's climate may significantly influence its pupils and their ability to learn, suggesting that schools need to do more to provide quality educational environments for their students. Between this and the mid-1950s, very little happened within the field of

school climate research. However, from the mid-19<sup>th</sup> century, empirically grounded research into school climate, its measurement, and its effects started to grow and become an important area within the field of education research (Cohen, McCabe, et al., 2009; Wang & Degol, 2016).

While school climate researchers have endeavoured to draw upon several different theories in the process of explaining school climate, including resilience theory, attachment theory, and social cognitive theory (Marraccini et al., 2020; Wang & Degol, 2016), the primary theoretical framework that researchers have turned to is Bronfenbrenner's (1979) ecological systems theory.

Ecological systems theory (EST) describes human development as the outcome of bi-directional interactions between an individual and the layers of environmental contexts around them (Bronfenbrenner, 1979). EST proposes that the environments within which a person interacts extends well beyond the immediate setting and recognises that broader contexts such as the neighbourhood they live in, their parents' jobs, and their country's political environment have cascading effects on the individual, generally based on how the broader contexts shape more immediate contexts. In the standard model of EST, the most immediate system having a direct influence on the individual is the *micro-system*. This system includes the activities and interpersonal relationships the individual directly interacts with in any given setting, such as their immediate family, peers, teachers, and classroom environments. The next system is the *meso-system*, which covers the relationships between two or more elements of the *micro-system*, such as interactions between one's parents and teacher. Following this, with increasingly indirect influences on the individual are the *exo-system* (e.g., parental income, availability of community services, neighbourhood environment), the *macro-system* (e.g., social and cultural values, district laws, and

community norms), and finally the *chrono-system* (e.g., an individual's developmental stage, socio-historic events, and intergenerational experiences) (Bronfenbrenner, 1979; Rudasill et al., 2018).

Bronfenbrenner always described his theoretical framework as evolving, and 28 years after the first comprehensive articulation of EST (Bronfenbrenner, 1979), he and Morris (2007) published a major update. The bioecological model of human development (Bronfenbrenner & Morris, 2007) builds on EST, explaining that individual development is impacted by four key inter-related constructs; namely *person*, *process*, *context*, and *time*. The *person* construct relates to the different cognitive and socioemotional characteristics possessed by the individual central to the model. This construct is important because different intra-personal factors influence how one interacts with the people and contexts around them and how those people and contexts react to the individual (Bronfenbrenner & Morris, 2007). *Process* focuses on all the interactions the developing individual has with the people, objects, symbols, and settings around them (Bronfenbrenner & Morris, 2007). When these interactions occur repeatedly, across sustained periods of time, they are recognised as proximal processes (Bronfenbrenner & Morris, 2007). Proximal processes are bi-directional exchanges and directly influence developmental opportunities (Bronfenbrenner & Morris, 2007). *Context* is the point in which the bioecological model most closely reflects EST, dividing the context around the central individual into EST's five distinct systems (micro-, meso-, exo-, macro- and chrono-systems). Similar to EST, the *chrono-system* attends to the construct of time and the effect temporal factors may have on the individual (Bronfenbrenner, 1979); however, *time* has a role across multiple aspects of the bioecological model. Bronfenbrenner and Morris (2007) differentiate between three temporal contexts; micro-time (specific events, or processes as they happen), meso-time

(the recurrence of processes and interactions over time), and macro-time which aligns with EST's *chrono-system*. The time system within which events happen in a person's life is understood to influence the impact these events have on the central person.

To date, school climate researchers have been very slow to integrate the advances in bioecological theory into their research and still largely rely on the original theoretical constructs from EST. Compared to EST, the bioecological model of development adds depth to the understanding EST provides and invites more aspects of school life to be incorporated into how researchers conceptualise and understand the role of school climate.

Relating EST (Bronfenbrenner, 1979) and the bioecological model of human development (Bronfenbrenner & Morris, 2007) to school climate should be relatively straightforward as schools are complex systems that are heavily influenced by factors from all five of the ecological contexts. First, schools are one of the key *micro-systems* within which young people interact and engage daily. Students spend a large proportion of their developmental years interacting with various school environments, meaning characteristics of the school and its climate may directly affect students' behaviours, learning, and developmental outcomes (Thapa et al., 2013). The interactions students have with their classmates and peers, the schoolteachers, the curriculum, and the physical environment all influence how the students perceive their school climate. These recurring proximal processes contribute to the students' school experience and how they reflect upon their school. While the school is primarily positioned within the *micro-system* and the interactions and processes here have the most direct influence upon the student and their perceptions of school climate, the other systems are equally as important. For example, without considering the *meso-system*, we would fail to recognise the influence interactions between teachers and teachers, or teachers and parents, or even teachers and other students/peers,

may have on how the school's climate is perceived. At the level of the exo-system, factors such as the school's policies, behavioural and academic expectations, provision of extracurricular opportunities, funding, and quality of staff, all have the potential to shape how the student experiences the *micro-system* of the school, even though the students themselves do not influence how those elements are chosen and implemented (Cohen, McCabe, et al., 2009) At a *macro-system* level, schools are governed by external bodies, such as local school districts or boards to national ministries of education. These governing bodies decide the curriculum that is selected, the way teachers are trained to deliver that curriculum, and how schools are funded which have important but indirect influences on students' experiences within that school.

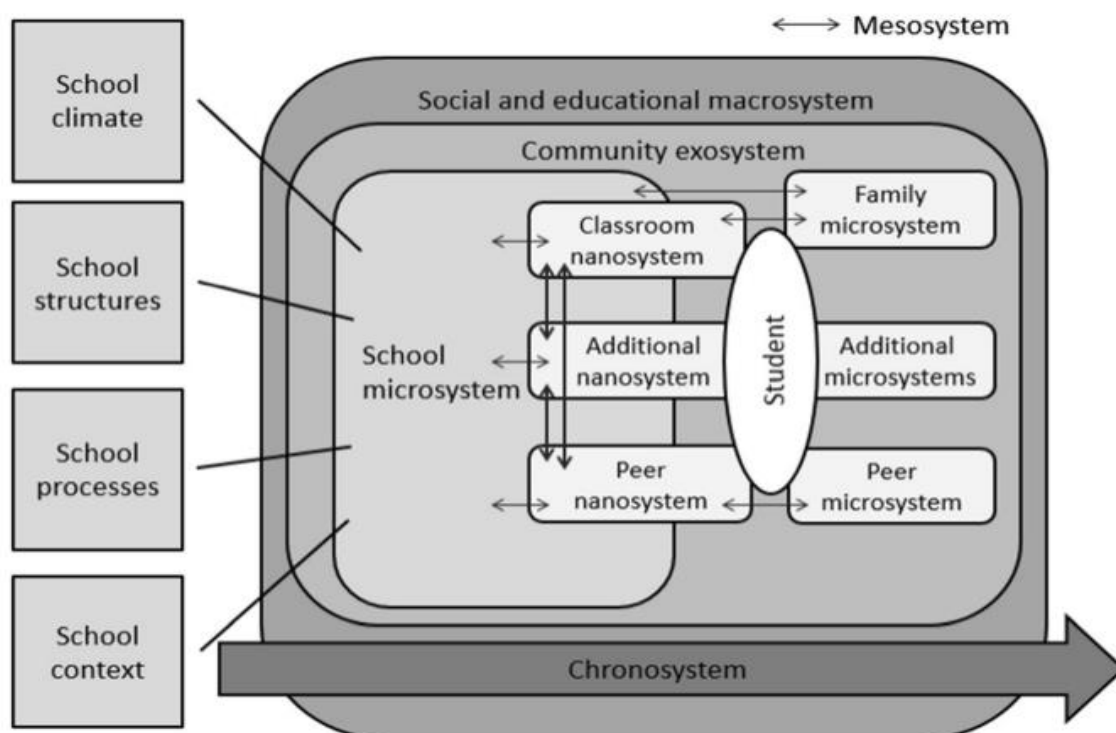
Taking a bioecological perspective allows school climate and school experiences to be understood as an outcome of multiple, interrelated, and interacting processes. These include those most directly related to the students such as their teachers and peers, as well as those broader, distal factors influencing educational beliefs and school practices (Wang & Degol, 2016; Way et al., 2007). Given that school climate is a complex, multi-dimensional construct made up of many factors at varying levels, it appears beneficial to utilise an ecological theoretical perspective such as those proposed by Bronfenbrenner and colleagues (1979; 2007) to guide how we understand the effects of these school contexts.

Adapting Bronfenbrenner's (1979) EST, Rudasill et al. (2018) proposed a systems-based framework specific to school climate (Marraccini et al., 2020). This framework is titled the Systems View of School Climate (SVSC; see Figure 1.1) and aims to explain the relationships between many aspects of school life which influence school climate. As seen in Figure 1.1, the SVSC positions the student at the centre of the model, with the school *micro-system* being a prominent feature on the left-hand side. Rudasill et al. (2018) shift the

students' other *micro-systems* (e.g., family, peer groups and neighbourhood) to the righthand side, separate from the school system. Unlike the family/peer *micro-systems*, the school *micro-system* does not overlap with the student. This is because Rudasill et al. (2018) assert that students' interactions with the school *micro-system* are mediated by interactions with sub-*micro-systems* within the school, which they call *nano-systems*. These *nano-systems* act as an intermediary level between the school *micro-system* and the student and are the settings in which students directly and repeatedly interact. The recognition of these intermediary *nano-systems*, such as what classes, cliques, sports teams, or extracurricular activities students engage in, aims to explain the phenomenon of students within the same school having vastly different experiences. For example, a school that heavily invests in the performing arts but not in sports will attract a certain population of students and may elicit

**Figure 1.1**

*Systems View of School Climate*



Note: From "Systems View of School Climate: a Theoretical Framework for Research" by K. Rudasill et al. 2018, *Educational Psychology Review*, 30, p. 35-60 (<https://doi.org/10.1007/s10648-017-9401-y>)

very distinct perceptions of the school climate based on students' interests. Rudasill et al.'s (2018) concept of *nano-system* somewhat emulates the idea of *proximal processes* discussed in Bronfenbrenner and Morris (2007); however, these *nano-system* interactions relate less to repeated, bi-directional interactions and rather position themselves as another system within which students directly interact at school.

The SVSC incorporates the *meso-system* throughout their framework (see arrows in Figure 1.1), showing bi-directional interactions between not only *micro-systems* (family and school *micro-systems*) but also *nano-systems* (interactions between classroom and informal peer group nano-systems) and *nano-systems* and *micro-systems* (interactions between classroom nano-system and school *micro-system*). The double-headed arrows in Figure 1.1 symbolise those *meso-systemic* interactions. Lastly, Rudasill et al. (2018) continue to include the exterior systems of Bronfenbrenner's (1979) EST, because, while distal, they have meaningful influences on school climate and how the school operates at the *meso-*, *micro-* and *nano-*levels (Rudasill et al., 2018). The SVSC aims to provide a framework school climate researchers can use to understand the multitude of factors influencing students' experiences and their perceptions of school climate (Rudasill et al., 2018).

#### 1.2.5 Influence of School Climate on Student Outcomes

It has already been mentioned that schools are a primary developmental context for young people and that a school's climate has the potential to drastically alter the social, emotional, and learning environments within which students learn and develop. Given this, there is consistent evidence that schools and a school's climate can significantly influence students beyond that of the curriculum (Cohen, McCabe, et al., 2009; McGiboney, 2016; Thapa et al., 2013; Vieno et al., 2004; Wang & Degol, 2016). While attention has previously focused on finding associations between school climate and student academic outcomes,



recent research has emphasised the various ways school climate may additionally impact students' emotional and behavioural outcomes (Aldridge et al., 2016; Cohen, McCabe, et al., 2009; Cohen, Pickeral, et al., 2009; Marsh et al., 2014; McGiboney, 2016; Thapa et al., 2013; Vieno et al., 2004; Wang & Degol, 2016; Way et al., 2007). In fact, school climate may influence the whole child and have longitudinal effects that extend beyond their time at school (Aldridge et al., 2016; Cohen, McCabe, et al., 2009; Eccles & Roeser, 2011).

Academic outcomes associated with a positive school climate include increases in academic achievement (Demirtas-Zorbaz et al., 2021; Reynolds et al., 2017; Zysberg & Schwabsky, 2021), motivation to learn (Furrer & Skinner, 2003), engagement within the classroom (Furrer & Skinner, 2003) and graduation rates (Thapa et al., 2013). One multi-informant, cross-sectional study explored the association between school climate, peer victimisation and school achievement in a sample of 1,023 fifth-grade students, from 50 schools in the province of Ontario, Canada (Wang et al., 2014). While the study's results primarily focused on school climate and peer victimisation, the authors also found that a one-point increase in school climate ratings, correlated with an increase in student grade point average (GPA). In a more recent study, Zysberg and Schwabsky (2021) found that across their sample of 1,600 intermediate and secondary school-age Israeli students, two school climate dimensions (specifically school belonging and peer relationships) were positively associated with students' academic self-efficacy, which seemed to consequently increase academic achievement. Looking at contemporary academic reviews, Demirtas-Zorbaz et al. (2021) conducted a meta-analysis of 38 studies ( $N_{\text{total}}=491,312$ ) and found that the relationship between school climate and academic achievement was small but significant (.178). Thapa et al. (2013), reaffirm this in their review finding that these small

but significant associations between school climate and academic achievement are consistent across primary, intermediate, and secondary school levels.

The literature also shows that school climate similarly influences the behavioural outcomes of students (Aldridge et al., 2016; Loukas, 2007; Marsh et al., 2014; Wang & Degol, 2016; Way et al., 2007). Marsh et al. (2014) examined students' aggressive behaviour and attitudes towards aggression at school. In their study of 1,169 year 11 students from Aotearoa New Zealand, they found that a more positive school climate predicted less aggressive behaviour at school and less positive attitudes towards school-yard aggression. The authors found support for their hypothesis that perceptions of school climate may mediate the association between the quality of student-teacher relationships, and students' inclination towards aggression at school. In another study examining the effect of school climate on student behaviour, Wang et al. (2010) found that a decline in perceived school climate was associated with more externalising behaviour problems across a sample of 677 middle-school age children. These problem behaviours included skipping school without a reason, carrying a weapon at school, and stealing. These two studies show the potential ways school climate may influence the behavioural outcomes of students; while other studies suggest that school climate may also influence adolescent behavioural adjustment and their engagement in risk-taking behaviours (Marsh et al., 2014; Way et al., 2007).

On top of influencing academic and behavioural outcomes, there is well-established evidence that school climate significantly influences student well-being, mental health, and psychological/emotional outcomes (Aldridge et al., 2016; Cohen, McCabe, et al., 2009; Loukas, 2007; McGiboney, 2016; Vieno et al., 2004; Wang & Degol, 2016; Way et al., 2007). In particular, positive perceptions of school climate have been linked to increased school satisfaction (Vieno et al., 2004), improved quality of life/life satisfaction (Aldridge et al.,

2016; Suldo et al., 2012; Vieno et al., 2004), stronger self-concept and self-esteem (McGiboney, 2016; Way et al., 2007), improved psychological functioning (Suldo et al., 2012; Way et al., 2007), clearer ethnic and moral identity (Aldridge et al., 2016), and greater opportunities for positive youth development (Cohen, McCabe, et al., 2009; Thapa et al., 2013). School climate is also negatively correlated with peer victimisation (Eugene et al., 2021) and positively associated with increased support seeking in wake of peer victimisation experiences or threats (Eliot et al., 2010).

In Aldridge et al.'s (2016) cross-sectional study of over 2,200 Australian student participants, results showed that all six of their school climate factors were significant determinants of student wellbeing. In particular, school connectedness, one of their dimensions of school climate, strongly predicted life satisfaction and self-reported well-being; while connectedness to peers, predicted resilience, ethnic identity and moral identity, resulting in further increases in life satisfaction and perceived well-being (Aldridge et al., 2016). Interestingly, Suldo et al. (2012) found that 22% of the variance in students' life satisfaction was attributed to their perceptions of school climate. With additional associations being identified between perceptions of school climate and internalising/externalising psychopathological disorders, especially for females.

One of the clearest demonstrations of the impact of school climate on student well-being and mental health comes from Way et al. (2007). In their study using 1,451 adolescent participants' data from an existing longitudinal study, they found that when perceptions of the school climate dimensions decreased, coinciding indicators of psychological/emotional health also decreased, as represented by self-reported self-esteem and depressive symptoms (Way et al., 2007). Evidence provided across the literature suggests that a

positive school climate seems to more strongly influence student wellbeing, rather than a poor school climate predicting psychopathology (Suldo et al., 2012).

Drawing on the body of research available it is clear to see the many significant links between school climate and student outcomes. Available literature points to school climate, especially its relationship dimension, having substantial effects on student outcomes academically, behaviourally, and psychologically. Due to this, it seems pertinent that educators and researchers focus attention on the ways a school's climate may be improved to encourage the best possible effects on students within its system.

#### 1.2.6 Improving School Climate

Ever since the importance of school climate began being recognised, researchers have sought to identify methods which educators and school staff may use to improve and sustain a positive school climate. School climate has been recognised as a malleable construct (Wang & Degol, 2016), which Charlton et al. (2021) concludes can be improved through schoolwide intervention. While Charlton et al.'s (2021) review asserts that more research is required into school climate intervention initiatives, and their efficacy, consistent, high-quality implementation across the school is believed to have strong, positive effects on improving all four dimensions of school climate. Voight and Nation (2016) claim that by making schools safer, more connected, and better resourced, schools will likely see an increase in school climate ratings and a reduction in schoolyard problems such as peer victimisation, substance use, and poor student well-being. While the reasons to improve school climate appear clear, there is limited experimental evidence suggesting effective methods of doing so (Charlton et al., 2021). This has been called for within schools, with VanLone et al. (2019) presenting that schools require greater guidance on what to implement and how.

Current literature proposes that school climate improvement requires intentional, consistent, community-wide efforts, which incorporate collaboration across students, teachers, school leadership, and parents, as well as holistic incorporation into the school curriculum and daily activities (Charlton et al., 2021; Cohen, McCabe, et al., 2009; Cohen, Pickeral, et al., 2009; Thapa et al., 2013). Additionally, improvement initiatives need to be sensitive to the individual school and prioritise being inclusive of all members' backgrounds and needs (Voight & Nation, 2016). From their review of over 60 school climate intervention studies, the authors proposed that interventions tend to and should include (a) school climate change efforts in the curriculum and school policies, (b) systems to manage student behaviour and prevent antisocial behaviours at school, (c) schoolwide social and emotional skills education, (d) systems to encourage and build strong, positive connections between students, teachers, and other school staff, (e) community and parental involvement, (f) adequate supports to students with academic or behavioural challenges, (g) the maintenance of school cleanliness and quality resources, and (h) should encourage, include, and value student voice in all aspects of the school decision making (Charlton et al., 2021; VanLone et al., 2019). Darling-Hammond and Cook-Harvey (2018, p. 41) presented seven similar school climate improvement strategies which were frequently used within the interventions they reviewed. Again, the focus seems to be placed upon increasing the relationships and support networks within the school, implementing activities and strategies to best manage students, teaching social-emotional skills, and valuing students' experience and voice.

Relating these strategies to the Systems View of School Climate (SVSC) noted in Figure 1.1, it is important to recognise that for school climate initiatives to work, researchers suggest that intervention is required in all domains of the school ecological system. Looking

through the strategies proposed, the authors (Charlton et al., 2021; Darling-Hammond & Cook-Harvey, 2018; VanLone et al., 2019; Voight & Nation, 2016) suggest strategies which influence the individual student, the classroom and peer nano-systems, the school micro-system, as well as the school processes. Across these, strategies are suggested that target all four school climate domains proposed by Cohen, McCabe, et al. (2009) and Wang and Degol (2016), with many specifically focusing on the *Relationships* domain.

According to Charlton et al.'s (2021) review, the school climate interventions which received the greatest empirical support and evidence of efficacy were those focused on Social and Emotional Learning (SEL), and School-wide Positive Behavioural Interventions and Supports (SWPBIS). In particular, SWPBIS initiatives produced the largest effect size compared to other schoolwide initiatives and had the strongest methodological quality (Charlton et al., 2021; Rutherford et al., 2022). Sugai and Horner (2015; 2009) designed SWPBIS as a framework to improve student educational and social outcomes, through the provision of behavioural supports and positive shifts in whole-school social culture. SWPBIS follows a similar model to applied behavioural analysis and follows a multi-tiered prevention model, frequently used within community health sectors (Horner & Sugai, 2015). Tier 1 of their model is of particular interest to this study. Within Tier 1: the Primary Prevention tier, schools focus on establishing a positive school social culture. This is done by first defining and teaching a small set of positively worded, behavioural expectations (e.g., be respectful, be responsible and be safe). Once these expectations are developed, systems must be implemented to reinforce and manage disruptions to these behavioural guidelines and a system for collecting and using data related to these expectations must be developed to be used in decision-making processes (Horner & Sugai, 2015; Rutherford et al., 2022). Ideally, tier 1 interventions should be implemented before problem behaviours become normative

at school and aim to act as preventative measures to improve the outcomes of all students (Horner & Sugai, 2015; Rutherford et al., 2022). Because all students and school members experience the behaviour expectations, the systems and practices must be well designed to allow consistent, positive implementation across the school system (Horner & Sugai, 2015). Tiers 2 and 3 of Horner and Sugai's (2015, p. 81) SWPBIS are outlined in their paper but will not be focused upon here as they are less applicable to the present study.

Bradshaw et al. (2009) and Rutherford et al. (2022) are two studies which used a SWPBIS approach to influence school climate, particularly organisational health and teachers' perspectives of the health of the school. In both studies, school climate, as measured by organisational health measures, was significantly improved following the implementation of SWPBIS. In particular, Bradshaw et al. (2009) saw results suggesting SWPBIS improved staff affiliation and students' drive within the classroom, as well as overall organisation health score. Rutherford et al. (2022) aimed to explore these findings further and found that the teaching of several SWPBIS expectations had the greatest influence on positively predicting staff respect and fairness towards students, and support to school staff from school administration. The results from both of these studies indicate that a SWPBIS intervention can improve school climate for teachers; however, future research should explore the effects of SWPBIS on students.

Evidence from Bradshaw et al. (2009) and Rutherford et al.'s (2022) studies, along with the conclusions of Charlton et al.'s (2021) review, support that purposeful implementation of school-wide interventions may have positive effects on school climate and consequently student and staff outcomes. By focusing on the consistent and universal promotion of a limited number of targets or expectations, rather than pushing complex, multi-tiered initiatives, these simpler programmes should be better implemented and will

require fewer resources and time to see effects (Charlton et al., 2021). Given this information and the current challenge of improving schools to promote positive child development within Aotearoa, attention must be placed upon developing initiatives which have the potential to improve school climate and student outcomes, through school-wide positive interventions. It is important to note however, that rarely have school climate initiatives been tested in bicultural or indigenous school settings, nor have many been conducted in Aotearoa New Zealand. Given this, and the emphasis Aotearoa is increasingly placing on initiatives to be culturally appropriate and responsive, further research is required within this area and attention should be placed on analysing the cultural applicability of initiatives being implemented in schools nationwide.

### **1.3 E Tū Tāngata**

#### **1.3.1 What is E Tū Tāngata?**

E Tū Tāngata (Stand Together; 2022) is a reasonably new initiative which aims to make a difference in the lives of New Zealanders by challenging the seemingly engrained culture of criticism that burdens our society, schools, workplaces, and households within Aotearoa. As a grassroots initiative, E Tū Tāngata (ETT) originates from the work of 24-7 YouthWork (2016), a national organisation that places youth workers in schools, in partnership with local churches and other community organisations (e.g., youth trusts). As a response, at a cultural level, to New Zealand's alarming mental health statistics, the main goal of ETT is to tackle Tall Poppy Syndrome and transform our culture of criticism (E Tū Tāngata, 2022a).

Tall Poppy Syndrome (TPS) is a phenomenon, common within Australasian cultures, where people are criticised, belittled and 'cut down' by others due to their achievement, success or status, which places them in a position perceived to be above or beyond their



peers (Holmes et al., 2017; Mouly & Sankaran, 2000). ETT (2022b) acknowledges that TPS may be one of the lingering effects of colonisation and explains that it may result from the general population's opposition to the hierarchical structure present within the colonising countries. Tall Poppy Syndrome takes many forms within Aotearoa's society. This varies from light-hearted, innocent 'banter' between friends, to purposeful, derogatory comments being made to and about those who are seen as a threat. Rather than be happy for, or proud of, someone for achieving something, others' successes may be seen as a threat to the self as people naturally engage in social comparison.

Given the widespread, and even international, recognition of Tall Poppy Syndrome (TPS) and the assumed impacts it has, minimal amounts of research have been conducted in the area, with even fewer studies exploring its presence and effect on youth or at schools. The majority of the early studies investigating TPS were conducted by Norman Feather, an Emeritus Professor and researcher at Flinders University, Australia. Feather's inaugural investigation of TPS found that across a sample of 1,531 high school-aged participants, students reported greater satisfaction from observing a person they perceived to be successful (a Tall Poppy) failing at something or falling to an average position than if a non-Tall Poppy experienced this same fall (Feather, 1989). Interestingly, Feather (1989) associated these attitudes with students' global self-esteem and the value they place on achievement, with those lower in both global self-esteem and achievement value being more likely to experience signs of TPS than those with higher levels of both.

In other studies, Feather and colleagues (1993; 2002) reinforce these findings and add to the results by suggesting that there may be cultural and emotional influences which encourage or inhibit Tall Poppy-ing behaviours. In their 1993 questionnaire-based study, Feather and McKee revealed strong cultural differences in the extent to which participants

seemed to enjoy “bringing down” a high achiever. They concluded that those from more collectivist cultures (e.g., Japan in this study) were more likely to experience TPS than those from individualistic cultures (e.g., Australia), due to their cultures’ preference for being a part of the collective group and thus not standing apart from it. In his 2002 study, Feather and his colleague aligned the positive emotional experience of TPS to the German term *schadenfreude*, which means to gain pleasure from another person’s misfortune or mistakes. Within their study, Feather and Sherman (2002) aimed to explore the motivation behind TPS behaviours and the presence of *schadenfreude*. Within their mixed-methods study, the authors concluded that feelings of resentment, rather than envy, positively predicted students’ motivation to ‘cut down’ the achieving person and then experience pleasure in doing so. They explained that resentment (a negative feeling resulting from the perception that an outcome is underserved), rather than envy (feeling discontent in response to feeling inferior to another), explained this motivation as it was closely aligned with feelings of injustice and the perception that the individual’s success was undeserved. Other researchers (Behler et al., 2020) have found that participants who were envious of their peers were less helpful towards them, were more competitive and were more likely to engage in behaviours which negatively affected those they felt envious of.

In the past decade, two student researchers at the University of Canterbury (UC) have focused their Masters and PhD research on TPS. One was conducted by Dediu (2015) who used several performance measures on a sample of 229 participants to conclude that adults who worked in an environment that was heavily influenced by TPS experienced negative work outcomes related to decision-making. In particular, those who worked in an environment where the ‘fall’ of tall poppies was favoured, were less likely to rely on their

colleagues, showed increased decision-making avoidance and decreased decision-making dependability (Dediu, 2015).

The other UC-based research was conducted by Tapper (2014) and is particularly relevant to this project. Within her study, Tapper (2014) investigated the challenges faced by high-achieving high school students and highlighted that many participants tended to self-deprecate in terms of their abilities and achievements, in hopes to be perceived as on par with their peers. Data gathered from interviews with 11 students, their parents and their teachers, indicated that many of the highest-achieving students felt uncomfortable discussing or being recognised for their successes, and thus tended to engage in self-deprecating talk to avoid disclosing their achievements. Tapper (2014) went on to highlight that students shared a fear of being ostracised by their peers as a result of appearing too smart or better than them, and therefore avoided talking about their achievements and preferred to 'cut' themselves down to avoid the social judgement aligned with being perceived as boastful.

Taken together, these studies suggest that there are two sides to TPS. The first side attends to the research and occurrence of people feeling pleasure and satisfaction in response to seeing those of higher social status or achievement level experiencing misfortune or failure (e.g., *schadenfreude*), and the implications this satisfaction has on the ways in which populations speak of and treat high achievers. The alternative side is highlighted in Tapper's (2014) research and addresses people's fear of being 'cut down' or 'tall popped', which results in them self-deprecating to minimise the visibility of their success and the failure to recognise the inherent value themselves and others have. ETT and the research being conducted within this project focus on this second side. Most specifically, ETT aims to address and minimise peoples' tendency to self-deprecate and fail to recognise

the innate value they and others possess as unique individuals. By addressing this, ETT aims to change this critical narrative present and promote a culture where every person is valued and will ETT (Stand Together) in support of one another (E Tū Tāngata, 2022a).

ETT strives to achieve this through three stages, and by the promotion of three distinct principles (also referred to as mindsets or strands). Stage one is awareness – it is the recognition of this issue within New Zealand’s culture and helping people become aware of how it undermines self-worth and cohesion. Stage two is alignment. This is where individuals think about how they might adopt more positive social norms and see the potential value in the proposed ETT mindsets. These mindsets are *You Have Value*, *We Succeed Together* and *Others Matter* and will be discussed further below. The last stage is application and addresses the ways in which individuals apply the ETT mindsets to everyday life. ETT has an open-access resource kit (kete) available which provides school groups, businesses, and households with the resources to facilitate discussions around the three mindsets and how these can be enacted. Across Aotearoa, ETT has been implemented in many schools, sports teams, community groups, businesses, charities, and households, which all hope to further ETT’s mission and help transform this aspect of Aotearoa’s culture.

### 1.3.2 The Three Mindsets

As mentioned, the three ETT strands, or mindsets, are *You Have Value* (*He mana tōu nō whakapata*), *We Succeed Together* (*Ki te kāpuia e kore e whati*) and *Others Matter* (*He aha te mea nui o te ao, he tangata*). These three mindsets conceptualise all that ETT aims to promote and can be used to remind ourselves and others of the innate worth all people possess, and how this can be used for the greater good, both individually and collectively. A helpful framework for understanding the foundation of these three stands comes from the Aotearoa New Zealand youth development strategy known as Mana Taiohi (Ara Taiohi,

2023). Mana Taiohi is a bicultural youth development framework that is based on Te Tiriti o Waitangi and key kaupapa Māori (Māori principles). Mana Taiohi was developed through a cross-sector collaborative process that involved academics, educators, youth workers, and young people themselves.

The first mindset, *You Have Value*, refers to the intrinsic worth, value, mana and mauri that all human beings have (E Tū Tāngata, 2022d). *You Have Value* and the Māori concepts of mana suggest that all people are born important, and valuable, while mauri emphasises that all people possess characteristics, beliefs and dreams which make them uniquely who they are (Ara Taiohi, 2023). When working with young people in Aotearoa, the Mana Taiohi framework outlines that it is critical that the young person's mana, mauri, and value are cherished, and effort is provided in helping them recognise and sustain an appreciation of that worth. ETT aims to do this with its first mindset and claims that this inherent value persists and deserves recognition regardless of one's history, social characteristics, or life-course experiences. ETT suggests that when people recognise and know their own value, it encourages them to combat the negative self-talk resulting from criticism from others, allows them to avoid Tall Poppy Syndrome, and fosters resilience.

The second mindset is *We Succeed Together*. This mindset refers to the notion that people and communities are stronger and more successful when they work in collaboration (E Tū Tāngata, 2022c). Encouraging a shift from a 'me vs them' mindset to a more inclusive team mentality, ETT proposes that when people effectively work together, challenges will be overcome more readily, and collective success will be probable. This relates directly to the Māori concepts of whanaungatanga (appreciation and value of relationships) and kotahitanga (togetherness/collective action) and is exemplified by the whakataukī, or Māori

proverb, *nā tō rourou, nā taku rourou ka ora ai te iwi* (with your food basket and my food basket the people will thrive) (Kia Eke Panuku, n.d.). The Mana Taiohi framework emphasises that by prioritising whanaungatanga with others, an investment is made in fostering belonging and genuine, reciprocal relationships which are mana enhancing and beneficial for all. E Tū Tāngata (2022c) aims to recognise the strengths that each individual contributes and promote an environment where it is standard practice to compliment others on their strengths and achievements and build each other up, rather than tear each other down from being threatened by others' achievement. By working in collaboration, rather than in competition, or by using both our food baskets, the wellbeing of the group will be lifted, and success can be experienced by all.

The last mindset, *Others Matter*, builds on the previous two mindsets and focuses on how the collective group perceives and treats others who may be seen as different to the majority group. According to the first mindset, if every person individually has inherent value, then it naturally follows that those who are different by gender, ethnicity, sexuality, ability, or any other factor also have value. This mindset can be linked to the Māori concepts of *manaakitanga* and *whai wāhitanga* as they both prioritise the extension of kindness, respect and mana appreciation to others while encouraging participation and the conservation of collective well-being (Ara Taiohi, 2023). Historically and up to the present day, humanity has a tragic record of marginalising others who are perceived as different, either by ignoring them or by outright condemnation and discrimination. ETT promotes that the majority group should become allies and ambassadors for 'others' and engage in actions which are mana-enhancing and help others to recognise their own value.

### 1.3.3 Theory of Change Development

A Theory of Change (ToC) is a document designed to map out an initiative, its goals, and the theoretical logic behind its practices in pursuit of its intended outcomes (Taplin et al., 2013). A ToC framework may be used to depict the logical pathways of influence across the precipitating and perpetuating factors that an initiative is trying to address, the intermediary targets that are expected from the initiative's strategy, and the initiative's long-term goals and outcomes (Funnell & Rogers, 2011; Taplin et al., 2013). A ToC presents a roadmap of relationships between the malleable pre-conditions and the desired outcomes, justifying these upon evidence, logic, and theory from a number of research-based sources. Ultimately the purpose of a ToC is to depict how changes implemented by those who facilitate an initiative will lead to the intermediary and long-term outcomes, as predicted by the key stakeholders and programme developers (Chin et al., 2022; Taplin et al., 2013). The understanding presented by a ToC may be used to test hypotheses and direct research focused on examining the implementation and impact of the initiative (Taplin et al., 2013).

ToCs tend to be considered 'living' documents and thus iteratively develop and change, as the organisation itself grows. According to Janzen and Wiebe (2010), this is essential as ToCs must be flexible and responsive, especially to the often complex and dynamic factors present within the initiative and the target environment. This can mean that multiple ToC documents may be produced during the life span of an initiative and will likely need to be updated as the initiative/programme matures and develops. The process of designing a ToC is largely collaborative and requires clarification on the long-term goals and repeated identification of what factors need to be present for those outcomes to be achieved (Taplin et al., 2013).

In terms of ETT and the development of the initiative's ToC, it has been an ongoing process involving many stakeholders. A draft ToC was developed in 2020, however, this has since been substantially revised over the past 12 months. This redevelopment has been conducted by members of the ETT team, and a group of University of Canterbury (UC) based researchers, within which I have played an active role. As a part of that UC research team, the work presented within this thesis will be used to contribute to the rationale for the ToC and represents an initial pilot test of some of the hypotheses represented in the model.

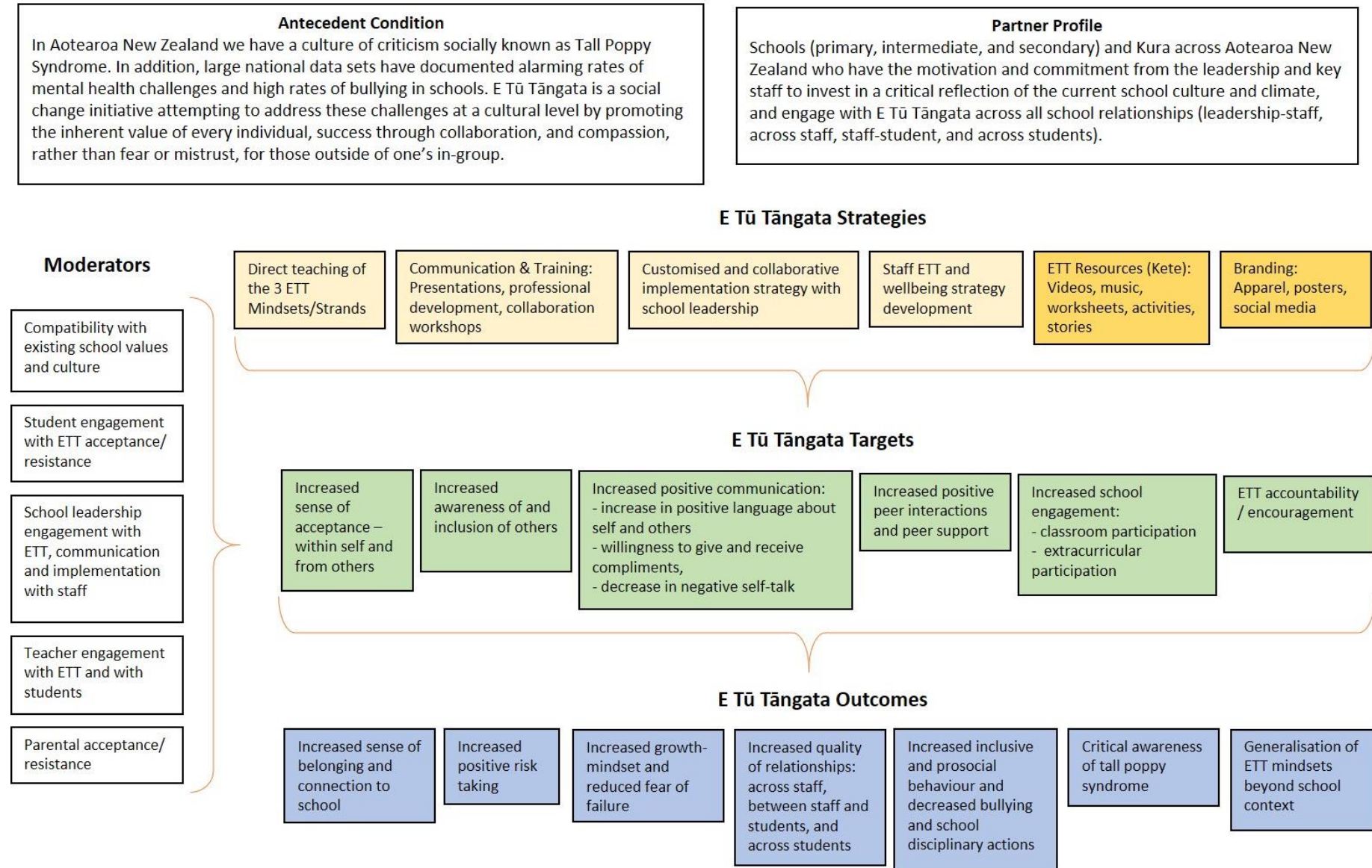
#### 1.3.4 E Tū Tāngata's Theory of Change

The aims of ETT, presented within their Theory of Change Model (see in Figure 1.2 below) underpin the research aims of this thesis and our intention to evaluate the implementation of ETT in schools and its efficacy in promoting school belonging and other outcomes, as indicators of improved school climate. This particular ToC demonstrates the implementation of ETT within educational contexts in Aotearoa New Zealand and is the most recent version of the ToC available. Looking at this ToC, the pathways between ETT's practices and strategies at schools and the long-term goals of ETT can begin to be understood and aligned.



**Figure 1.2**

*E Tū Tāngata Theory of Change for the Education Sector*



The Antecedent Condition at the top right of the model explains the foundational aspects of ETT and the conditions within Aotearoa which triggered the conceptualisation of the initiative. It outlines the problem the founders identified within the community and begins to explain how ETT aims to address this. To the left of this, the Partner Profile outlines what ETT seeks in a school partner or educational institution wishing to engage with ETT. ETT is currently suited to primary, intermediate, and secondary schools; and may be implemented in Kura, which are New Zealand schools teaching in te reo Māori, based upon Māori culture, kaupapa (principles) and tikanga (customs). To positively benefit from the involvement of ETT, schools must be committed to facilitating engagement in ETT across the school environment and actively involve both leadership and teaching staff, as well as students.

Next, the ToC presents six distinct Strategies which are the activities and actions schools undertake which initiate change and the journey towards targets and outcomes. Specific to this project, the first two strategies 1) “Direct teaching of the 3 ETT mindsets/strands” and “Communication & Training: Presentations, professional development, collaboration workshops”, as well as the “ETT Resources (Kete): Videos, music, worksheets, activities, stories” and “Branding: Apparel, posters, social media” are particularly relevant. These strategies combined influence how students and staff at school are introduced to ETT and how they are taught to engage with the initiative at school. More detail on how these strategies are implemented at the participating primary school will be discussed below.

According to the model, when strategies are implemented and schools engage, the presented targets should be experienced. Targets are the intermediary and most immediate outcomes which occur as a direct result of the implementation of strategies. No single

target would present as a result of an independent strategy; rather the combination of strategies combines to influence multiple targets. Regarding this thesis, many of the targets are important; with “Increased awareness of and inclusion of others”, “Increased positive communication”, and “Increased positive peer interactions and peer support” being assessed via students’ reports at the participating school. Of the seven outcomes (long-term goals of ETT), the first three (“School Belonging”, “Growth Mindsets” and “Positive Risk-taking”) are of most interest to this thesis study and the wider evaluation being conducted, as they relate to the specific outcomes we identified as indicators of improved school climate. More specifically, this thesis aims to test the hypotheses presented within the ToC, suggesting that the combination of multiple strategies leads to the presented targets, which collectively leads to the ultimate goals of ETT in schools (the ETT Outcomes). Further detail into why we expect these outcomes as a result of these strategies and targets shall be discussed in Section 1.4 below.

Several influential moderators have been identified which are expected to influence the implementation of ETT in school settings and thus the outcomes achieved by schools. Several of the moderators identified in the ToC are relevant to this study and the influence ETT has had on the students within this school. The first moderator, “compatibility with existing school values and culture” (Figure 1.2) is one of the factors influencing the likelihood of a school partnering with ETT, and how well the initiative fits with the existing school values that are often developed collaboratively with the wider school community. A second moderator, “the degree to which the school leadership team and the school staff engage with ETT” and thus how they communicate and implement its strategies, alters the exposure members of the school community have, and how they get involved. Arguably, the engagement and alignment of teachers has some of the greatest influence, as their

engagement is expected to differ based upon the value they see in the initiative, which will likely impact the way they communicate and commit to the ETT strategies, shifting the pathways to targets and outcomes for themselves and students. The other significant moderator for this study is “student engagement with ETT acceptance/resistance”. This factor is important as the level of acceptance and engagement students have with ETT will likely alter the targets and outcomes they experience.

Overall, the ETT ToC depicts a hypothesised network of pathways from the strategies ETT implements, to the targets and outcomes that members of a school community will experience. This ToC demonstrates the influence ETT aims to have on the education settings with Aotearoa, in response to the Antecedent Condition. This particular study aims to use this ToC as the foundation for the research and explore these hypothesised pathways.

#### 1.3.5 Implementing E Tū Tāngata as a Way to Improve School Climate

Rudasill et al.’s (2018) conceptualisation of the school eco-system (SVSC; Figure 1.1), is valuable when aiming to comprehend the various components of the school setting and thus understand how ETT has potential to influence the school micro-system. Considering the SVSC model alongside ETT’s ToC, it can be seen that ETT’s engagement with schools aims to primarily address three key domains of the school system. These include the individual student, the peer nano-system, and the classroom nano-system. The individual student is addressed most significantly by ETT’s *You Have Value* mindset and their commitment to encouraging students to recognise the intrinsic value and mana they have. The peer nano-system may be the most relevant focus of ETT’s influence at school, with many of their targets and outcomes being based upon the relationships that members of the school community have with one another. The classroom nano-system is also expected

to be influenced, as it is the primary setting within which ETT is practised and where students most actively engage with the initiative and its strategies. Across these three domains, ETT has the opportunity to greatly influence the lived experiences of young people at school, however, when the school's leadership team and staff apply the ETT strategies comprehensively (within the staff and in staff-student relationships), ETT has the opportunity to influence the wider school system, school processes and school climate.

While ETT was not specifically designed to improve school climate, the ToC suggests that through engagement with the ETT strategies across the whole school, several targets and outcomes indicating improvements in the school's climate are likely to occur. Of the four school climate dimensions discussed by Cohen, McCabe, et al. (2009) and Wang and Degol (2016), ETT focuses most on the *Relationships* domain of School Climate. Several targets and outcomes in the ToC contribute to this, including the hypothesis that students will present with increased "awareness and inclusion of others", more positive "peer interactions and peer support", and more "positive communication" about oneself and others. In addition, it is hypothesized that there will be an "increased quality of relationships" across the school and evidence of more "inclusive and prosocial behaviours". Together these targets and outcomes are expected to improve the daily experiences students have at school and enhance the social, emotional, and learning contexts of those within the school system.

Connections can also be made between ETT and the efficacious SWPBIS initiatives designed by Sugai and Horner (2015; 2009). As described earlier, SWPBIS initiatives aim to promote positive social interactions at school and improve school climate, by providing behavioural supports which influence positive, school-wide changes in the social

environment. Similar to Tier 1 SWPBIS initiatives, ETT in schools primarily focus on establishing and/or improving the school's social climate using a small set of positively worded, behavioural expectations. In the case of ETT, the three ETT mindsets may be considered as these behavioural expectations which are generally promoted and enforced at school. Unlike Tier 2 or 3 SWPBIS initiatives, ETT aims to act as a preventative measure within schools and interrupt the cycle of TPS before students accepting and partaking in Tall Poppy-ing behaviours become normative at school. While not designed specifically as a SWPBIS, I believe that connections here suggest that ETT has the opportunity to similarly influence school climate and the social environment within schools.

#### 1.3.6 E Tū Tāngata at School

The nature and degree of implementation of E Tū Tāngata within schools is largely determined by the schools themselves and the teachers who facilitate the day-to-day engagement. ETT's Kete (Kit; 2023) is a free, online database of resources, including educational videos, songs, worksheets, and numerous activities for different age groups, available to schools. The Kete can be tailored for different purposes and resources can be filtered based on whether you are an Educator, a Sport/Recreational Group Leader, or a Parent. The Kete went under a dramatic redevelopment in 2022 and as of early 2023 is approaching 200 available resources for educators to use within their schools and classrooms.

The Kete welcomes school leaders and educators to use the resources within the database to begin exploring the ETT mindsets with their staff and students. Traditionally, school leaders are the first to engage with ETT, and therefore are the ones who go on to introduce the school staff and students to the initiative. On a daily basis, much of the

engagement students have with ETT will be facilitated and directed by their classroom teachers. This means that the degree to which teachers see value in ETT, and therefore strive for the mindset shift within their classrooms, will greatly influence how much exposure students have. This will be most relevant within primary school settings where children spend the majority of their time with one or two teachers who can consistently facilitate engagement. In secondary school environments, where students visit several different classes and teachers each day, teachers will likely have less of a direct influence on facilitating ETT. In tertiary environments, teachers and staff will have even less of an influence, which may have important implications on the engagement and efficacy of the initiative.

When getting started, ETT provides videos and posters for teachers to use to get their students familiar with the concepts and importance of the ETT mindsets. In support of this, ETT provides teachers with numerous activities for students to engage in to reinforce these mindsets and encourage students to think, talk about and engage with ETT. While many resources are available, ETT strongly encourages teachers to be creative and generate their own activities, resources, and lesson plans, based on the mindsets and purpose of ETT. This is one of the key benefits of ETT as it allows teachers the freedom to cater the initiative to their individual class and their needs, while still ensuring the overarching principles. Currently over 90 schools across Aotearoa have at least one teacher registered to the kete, with two of those schools having over 30 staff signed up. In total, there are more than 360 people who have registered as educators that have accessed the kete. While ETT does not retain specific details of how many students these educators are using ETT with, we know that over 90 schools are to some degree engaging with the initiative (either in a single

classroom or more broadly throughout the school), meaning students at those schools are being exposed to the ETT in some regard.

## 1.4 E Tū Tāngata's Proposed Outcomes

### 1.4.1 School Belonging

School belonging is a well-researched concept which typically refers to the sense of connectedness students feel to their school environment and those within it. As one of the most referenced definitions of school belonging within the literature, Goodenow and Grady (1993, p. 61) describe school belonging as the extent to which students feel they are “personally accepted, respected, included, and supported” by others within their school (Allen et al., 2018; Chapman et al., 2013; Korpershoek et al., 2020; Slaten et al., 2016). It is the students’ belief that their peers, teachers and the school’s administration staff truly care about them as individuals and want them to learn and succeed (Blum & Libbey, 2004). Nevertheless, it could be argued that Goodenow and Grady’s definition of school belonging conflates the process by which a sense of belonging is developed with a student’s identification of their connection to a particular school community. School belonging is more than just fitting in, it summarises how a student feels about their relationship with the entire school (Allen et al., 2018; McGiboney, 2016).

Within the academic literature, the exact terminology used to label this feeling of belonging at school differs, with several different terms being used interchangeably to describe a very similar concept (Aldridge et al., 2016; Chapman et al., 2013; Korpershoek et al., 2020; Slaten et al., 2016). Some of the terms used interchangeably include school belonging, school connectedness, school attachment, school relatedness, school bonding and school affiliation. While each of these individual terms may present minute differences in definition and operationalism, I shall consider these to be slightly different variations of



the same concept within this study and thus will consistently refer to these concepts as school belonging rather than alternating between terms.

While a school's main objective is to educate its students, schools also play a vital role in providing one of the main social contexts young people engage with (Allen et al., 2018; Cemalcilar, 2010). Due to this, these school settings need to provide opportunities for students to have positive social experiences and satisfy their need for relatedness and connection. According to several theoretical frameworks, all humans have an instinctive need for connections with other humans and the social settings within which they interact (Korpershoek et al., 2020; Slaten et al., 2016). This understanding stems from Maslow's (1962) Hierarchy of Needs which posits that humans have a fundamental need for love and belonging, which can only be satisfied by forming genuine relationships with those around the individual, once their physiological and safety needs have been met (Slaten et al., 2016). Building upon this, Baumeister and Leary's (1995) belongingness hypothesis and Ryan and Deci's (2008) social determination theory emphasise a fundamental drive that humans have for interpersonal relationships, connection and a sense of belonging (Korpershoek et al., 2020; Slaten et al., 2016). According to Korpershoek et al. (2020) these combined theories, and the participation-identification model, suggest that when the school environment satisfies this need for belonging, students will identify more with their school and consequently be more engaged in the classroom and in their schoolwork.

By meeting this need and by providing students with the opportunity to feel as though they belong, schools provide a secure foundation for student functioning (Korpershoek et al., 2020). Students who feel they belong at school tend to perform better academically (Allen et al., 2018; Cemalcilar, 2010; Korpershoek et al., 2020; McGiboney, 2016; Slaten et al., 2016), are more motivated to learn (Korpershoek et al., 2020), have

better psycho-social health and wellbeing (Allen et al., 2018; Cemalcilar, 2010; Korpershoek et al., 2020), engage in more positive behaviours (Korpershoek et al., 2020; McGiboney, 2016; Slaten et al., 2016), attend and engage in school more frequently (Korpershoek et al., 2020), and are more likely to graduate (Korpershoek et al., 2020). Another study suggests that school belonging may even protect or buffer against pre-existing risk factors associated with the family system (Slaten et al., 2016).

The sense of belonging one feels to school is influenced by a range of factors. Continuing with a bioecological lens (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2007), individual and systemic factors interact to influence a student's sense of school belonging. At the individual level, Allen et al. (2018) claim that factors such as individual goals, self-esteem, optimism and conscientiousness, as well as academic self-regulation, academic motivation, and emotional stability influence how connected a student feels to their school. Moving beyond this, school belonging is said to be affected by proximal processes and the bi-directional interactions the student has with their *micro-system*, for example, their friends, peers, teachers and family members (Allen et al., 2018). In many studies, it is understood that student-student or peer relationships have the greatest influence on individual school belonging (Cemalcilar, 2010; Gowing, 2019). However, in their meta-analysis, Allen et al. (2018) found that teacher support (teachers showing the student mutual respect, care, encouragement and fairness, while also promoting student autonomy) had a stronger influence on school belonging than support and trust from peers. This is interesting as both relationships are said to significantly influence young people's sense of school belonging (Allen et al., 2018; Cemalcilar, 2010; Slaten et al., 2016), yet there seem to be inconsistencies in which party has the greatest effect. Beyond the *micro-system*, meso-systemic interactions and the school's climate, values, policies and practices (e.g., exo- and

macro-systems) interact to influence the overall supportiveness of the school and thus how a student connects to the school environment (Allen et al., 2018).

Focusing primarily on the school setting, both physical and social aspects of the school and its climate impact school belonging (Cemalcilar, 2010; Korpershoek et al., 2020; McGiboney, 2016; Slaten et al., 2016). Cemalcilar (2010, p. 258) present a model which aims to represent how a student's satisfaction with these social and structural elements may influence school belonging. From tests of these associations, Cemalcilar's results showed that both satisfaction with school relationships and the structural environment influence a student's sense of school belonging (.437 and .326 respectively), with perceptions of safety at school (perceived violence) and relationships with peers having additional direct effects upon school belonging. The results from this study support the notion that aspects of school climate, especially those of safety and relationships, directly influence student belonging. This has been supported by conclusions made in several school belonging reviews such as those of Korpershoek et al. (2020), McGiboney (2016) and Slaten et al. (2016). In particular, Korpershoek et al. (2020) concluded that students who feel more positively about their overall classroom climate tend to also have a stronger sense of school belonging, while Slaten et al. (2016) state that perceived safety at school is one of the strongest influences on school belonging.

As can be seen in the ToC model (Figure 1.2 above), an "Increased Sense of Belonging and Connection to School" may be an outcome for students engaging with ETT. From the research outlined above, it is known that when students feel safe at school and are satisfied with their school-based relationships then they will feel a greater sense of school belonging. Given this, and ETT's focus on promoting positive relationships between

students, via their strategies and targets, ETT has the potential to significantly influence the sense of school belonging students have. Rather than any one direct pathway, the combined strategies and engagement with ETT are expected to influence the targets and improve the quality of relationships young people have at school. On top of this, while not directly stated in the ToC, ETT is expected to improve the social and emotional safety of the school, by reducing bullying and improving relationships, which in itself is one of the biggest predictors of school belonging. The direct link between ETT's three mindsets and school belonging was explored in this study; however, the overall school climate and students' satisfaction with the safety and relationships within the school are expected to equally influence the sense of school belonging students feel.

#### 1.4.2 Positive Risk-taking

Contrary to common assumption, risk-taking does not have to refer to only negative, illegal, dangerous or socially-unacceptable behaviours (Duell & Steinberg, 2019). As defined by Holton (2004) risk constitutes any situation or behaviour where the outcome of an activity is not guaranteed and when there is a potential for both rewards and costs to occur as a result. Given this, risk-taking may in fact be negative or positive, depending on the balance of costs and rewards. Duell and Steinberg (2019) define negative risk behaviours as those which are illegal or harmful in some way, for example, substance use, theft or acts of violence. Contrarily, positive risk-taking behaviours are those which would be considered socially acceptable and beneficial to the individual (Duell & Steinberg, 2019), including trying out for a sports team, engaging with a new peer group, or standing up for someone/something which they believe in. In these situations, while potential costs still exist, the overall experience is understood to be a positive opportunity to benefit the individual's development or well-being and the costs involved tend to be milder in severity

compared to those of negative risk behaviours (Duell & Steinberg, 2019). While positive risk-taking has received little academic attention, and there is no concrete conceptualisation or definition of the construct, the consensus tends to be that positive risks are developmentally beneficial and socially acceptable behaviours which involve the minor potential for individual damages (Duell & Steinberg, 2019; May et al., 2021).

To date, there has been very little research conducted on the field of positive risk-taking. Of that available, most seem to employ adolescent participants and aim to build upon the well-established evidence base surrounding adolescent sensation seeking and negative risk-taking. In line with this present study, even less attention has been paid to the positive risk-taking behaviours of children, or in relation to the concepts of school climate or school belonging. In one recent study, conducted by May et al. (2021), the researchers found that several factors including students' peers, their school's norms and the reaction they expected to get from others influenced how likely students were to engage in positive risk-taking behaviours. Through focus group discussions with 196 high school students, May et al. (2021) concluded that when students perceive their schools to be more inclusive, more supportive and accepting of students' inclusive behaviours, students were more likely to engage in positive risk-taking behaviours, for example, initiating a friendship with a marginalised peer or talking with a student with a disability. This is particularly interesting to consider within this literature review as May et al. (2021) seem to propose that school norms, as a part of the school's climate, influence how inclusively students behave at school and thus how likely they are to engage in positive, prosocial risk-taking behaviours.

Given this connection, and the mindsets ETT promotes, ETT may secondarily encourage positive risk-taking behaviours, especially inclusivity behaviours, at school. Through their promotion of valuing yourself and others, and in their emphasis on

community and succeeding together, via their strategies, it is expected that students will become increasingly aware and inclusive of others, and engage in more positive peer interactions, which should together lead to increased inclusivity, pro-social behaviours and positive risk-taking. While this was not one of the initially expected outcomes of ETT, nor is it a general outcome of school climate initiatives in general, it was recognised in the early stages of this research project that this may be an additional and noteworthy outcome of ETT. As the research shows that positive risk-taking behaviours are more frequent in environments which are positive, inclusive, and pro-social, ETT may also promote positive risk-taking as it unintentionally provides school environments where young people feel safe and are supported to try new things without fear of criticism. Within this study, I aimed to investigate the presence of this proposed pathway between E Tū Tāngata, its mindsets and students' positive risk-taking.

#### 1.4.3 Responses to Failure

Another outcome identified in the ETT ToC, and a focus of this study, is students' perception of and responses to failure or mistakes at school. Drawing on the renowned work of Carol Dweck (2006) this study aims to investigate whether E Tū Tāngata, its kaupapa and how students view themselves influence how students approach learning, challenges and mistakes. Dweck (2006) proposes that there are two mindsets which influence how people learn and experience success and failure. The first identified mindset is the *fixed mindset*. Under this mindset, individuals believe that their intelligence and ability are set in stone and thus feel a need to engage in acts which shall validate their competence and avoid situations which may challenge or contradict their intelligence (Dweck, 2006). Under a fixed mindset, failure and mistakes are personified, with people responding to failure as if they believe that task failure means, "I am a failure", and that putting in effort means you

lack ability (Dweck, 2006). Contrarily, possessing a *growth mindset* suggests that people see their intelligence, ability, and qualities as things they can cultivate and develop. Failure and mistakes are seen as learning opportunities and show a need for greater effort to be put into these areas which need more attention. While failure and making mistakes may still be painful experiences for someone with a growth mindset, these experiences do not define them and instead are seen as opportunities for learning and improvement (Dweck, 2006). Within a growth mindset, success comes from the satisfaction of seeing oneself learn as greater effort is applied to increasingly challenging tasks; whereas success under a fixed mindset comes from the satisfaction of showing others their capabilities and superiority in a select area in which they excel (Dweck, 2006). Due to this, people with a growth mindset tend to feel more confident in situations where their intelligence may be challenged and consequently have a greater sense of belonging in these environments because of this confidence (Dweck, 2006). Those with a fixed mindset, in contrast, tend to be less confident in situations which challenge them and thus feel a reduced sense of belonging within situations or groups which are seen as a threat to their capabilities (Dweck, 2006).

The attraction of a growth mindset, particularly for professionals invested in promoting people's learning and positive adaptation (educators, counsellors, psychologists, social workers, etc.) seems clear. Within a school context, it appears understandable why teachers would want to nurture these growth mindsets that encourage students to seek out challenges rather than shy away from them and see their mistakes (and those of others) as opportunities to learn and grow.

Minimal research has been conducted into the connections between these growth mindsets and school belonging, however, one study conducted by Yu et al. (2022) aimed to examine this exact association. Results from their study of primary school students ( $n =$

2200) from Helsinki, Finland, showed that schools that valued and prioritised the social-emotional development of students, rather than just academic achievement, seemed to see an increased inclination towards growth mindsets for their students. This is interesting as it suggests that when schools focus on the holistic school experience including the social-emotional development of the child, students tend to approach learning and mistakes with a greater growth orientation. Further to this, another recent study found that when students feel safe, trusted, and like they belong at school, they are more likely to establish a growth mindset (Thomas et al., 2019).

Given the findings of these two recent studies and the wealth of research conducted by Dweck and her colleagues, it seems possible that when schools create climates where students feel they belong, are safe, treated fairly, and where teachers promote not only students' academic abilities but also their social-emotional abilities too, then students will be more inclined to apply a growth mindset to their learning. On top of this, and in line with the three strands of E Tū Tāngata, Dweck (2006) proposes that students with a growth mindset will be more confident in their abilities and not fear making mistakes.

As applied to E Tū Tāngata, the hypothesis is that when children experience a learning environment that affirms and promotes the inherent value of each person, recognizes the contribution that everyone makes to each other's success, and celebrates the diversity of individual differences within the group, this type of safe learning environment will shift the way students approach challenges, failures, and learning. As depicted in the ToC, students' increased self-acceptance, increase positive communication about self and increased school engagement, as a result of the direct teaching of the ETT mindsets and other ETT strategies, should accumulate to influence the predicted outcome of Increased Growth-Mindset and Reduced Fear of Failure in students. Within this study, I investigated



the presence and nature of this relationship and shall comment on the extent students' perceptions of their learning environment and alignment with the three ETT mindsets influences how they respond to failures at school.

### 1.5 The Present Study

The present study is one component of a wider research project being conducted to evaluate ETT in school settings. The first part of this research aims to develop a selection of evaluation tools which may be used to effectively monitor how different cohorts of a school community (i.e., students, parents, and teachers) experience ETT and consequently the effect this initiative has on shaping school climate and students' and teachers' sense of belonging within their schools.

The present study (hereby referred to as the Student Pilot Test) was conducted as a collaborative evaluation and medium-scale pilot test of the student evaluation component of the wider research study. As a pilot study (In, 2017; Morin, 2013), this project aimed to test the practical, ethical, and methodological soundness of the student questionnaire and highlight any potential issues or concerns, before a larger-scale study was conducted. The results of this test ought to provide valuable insight which may guide the implementation of a larger-scale study (Morin, 2013).

This Student Pilot Test aimed to develop and test the mixed-method student survey that was collaboratively developed with key stakeholders from the school and ETT. This Student Pilot Test had both formative and outcome evaluation objectives. Within the formative evaluation objectives, this Student Pilot Test aimed to investigate the psychometric properties of the quantitative components of the student survey. As this survey was specifically developed to meet ETT's and this study's requirements, the

psychometric properties, including the reliability and validity of the various scales, had to be evaluated to ensure it is suitable for future research purposes.

In addition, this Student Pilot Tests' objectives aimed to investigate how students perceived ETT at their school and explore any connections between E Tū Tāngata's mindsets (*You Have Value, We Succeed Together* and *Others Matter*) and students' sense of belonging, positive risk-taking, and their responses to failure. In addition to this, the study drew upon student responses to several open-response qualitative questions to gain more detailed descriptions of how students engage with and respond to ETT.

#### 1.5.1 Collaborative Evaluation

The Student Pilot Test has been designed and conducted as a collaborative evaluation study between ETT, a UC research team, and the participating primary school. Collaborative evaluation studies encourage researchers and key stakeholders to work together throughout the evaluation process (Rodríguez-Campos, 2012). Within the field of academic evaluation research, they are growing in popularity as they unite researchers and stakeholders from different domains, allowing all parties the opportunity to exchange knowledge, ideas and experiences (Rodríguez-Campos, 2012). This style of evaluation has been chosen to ensure members of ETT and the school hold an active role in the evaluation study and to allow the researchers access to the expertise and experience of ETT its members possess.

Throughout the process of designing and conducting this research, the wider research team has been heavily involved and had set the foundational aspects of the study before I became involved. Thus, there are several aspects of this project which were outside of my control, such as the study design, the initial selection of potential items for the survey, and the initial consultation and collaboration between the school and ETT.

### 1.5.2 Research Aims

In collaboration with the developers of ETT and the wider research team, three specific goals were developed for this Student Pilot Test, including:

1. Pilot test and evaluate the psychometric properties of the ETT student survey, including the reliability and validity of the newly developed quantitative scales.
2. Examine how the school's integration of the ETT mindsets (You Have Value, We Succeed Together, and Others Matter) is associated with students' sense of belonging to the school, positive risk-taking behaviours, and response to failure.
3. Investigate how older primary school students (yrs. 6-8) reflect upon ETT and the changes they have experienced personally and seen within their classroom and school.

### 1.5.3 Contributions from this research

This Student Pilot Test was expected to be beneficial to the wider research objectives, ETT, and the leadership team at the participating primary school. First, this Student Pilot Test was designed to contribute to ETT's developing evidence base and began the process of producing a student evaluation tool which ETT intend to use to monitor the impact their initiative has on students across all participating schools. This study was the first test of this measure and aimed to provide ETT with a tool that effectively assesses key outcomes from the ToC and provides a way to monitor the influence the initiative is having and provides an opportunity for students to identify the strengths and limitations of ETT and their school's strategy of implementation. Additionally, as described in the ToC section, my involvement in this research project has had beneficial impacts on the redevelopment of ETT's ToC and will significantly contribute to the rationale for ETT's involvement in schools by being the first test of the hypotheses proposed by the ToC. The primary school leadership

team was also expected to benefit from this study, as I will be providing them with feedback on what components of ETT are working well and what needs to be improved from the student's perspective. This study's results will be used to provide the school's leadership team with valuable insight into how students perceive the school's social climate and their sense of school belonging.

## Chapter Two – Methods

### 2.1 Study Design

This Student Pilot Test best reflects that of an exploratory, cross-sectional, retrospective, mixed methods study design. Within the field of education research, the use of mixed-method approaches is becoming increasingly popular as the best way to capture the complexities and implications of educational phenomena (Ponce & Pagán-Maldonado, 2015).

Mixed methods studies intentionally collect and combine the findings of both quantitative and qualitative data approaches, integrating these to formulate a deeper understanding of the research area (Doyle et al., 2009; Ponce & Pagán-Maldonado, 2015; Tashakkori & Creswell, 2007). By combining these approaches, researchers can reap the benefits of both methods and gain a broader understanding than would be achieved using a mono-methodological approach (Ponce & Pagán-Maldonado, 2015).

Due to the complexity of school climate experiences and the broad understanding of ETT's influences, we wished to gain, using a mixed methods study seemed the most suitable design. This allowed us to gain measurable insight into the degree to which students align with the ETT mindsets and how these correlate with the proposed outcomes through the quantitative items. Whereas the qualitative items provided valuable, descriptions of how students individually reflect upon ETT's implementation and the impacts they perceive it to have had on themselves and their school. Combined this mixed-methods survey allows us to gain insight into the complexities of ETT's influence at school and how students experience and reflect upon this.

This mixed methods design collected both quantitative and qualitative data during the same phase (concurrent/parallel timing), equally weighted the quantitative and

qualitative data while they were analysed independently, and integrated both data sets by firstly making connections between the data and then merging them during the interpretation phase (Doyle et al., 2009; Ponce & Pagán-Maldonado, 2015). As a cross-sectional, mixed methods study, we used the mixed method approach and applied it, at a single time point, to a sample from the population of interest rather than to the entire school population (Creswell, 2003; Zheng, 2015). The retrospective component refers to the reflective nature of this study and the project's focus on students reviewing the target event (in this case ETT) after being exposed to the initiative throughout the previous two years (2021 and 2022). The survey component of the Student Pilot Test will be reflected upon in the results and discussion sections, and any adjustments to the survey shall be suggested before the wider research project is conducted.

## 2.2 Recruitment

The student participants for this study are year six to year eight students from a full primary school (years 1-8) in the Canterbury region of Aotearoa New Zealand. The participating primary school was selected to engage within the wider research project as it was the first school to implement ETT, and since has seen ETT become well embedded within the school and its classrooms over the previous two years. ETT at this school has been led by the school's leadership team and incorporated into the communication strategies among staff and teachers in their classroom behaviour management practices.

Recruitment for the wider research project began during term 3 of the 2022 school year and was conducted in collaboration with the school's leadership and administration teams. To begin the recruitment process, the school sent an email to all the parents/caregivers of students in years 6, 7, and 8, inviting them and their children to participate in the research study (see Appendix B). The email included links to the electronic

surveys for both themselves and their children, hosted on the University of Canterbury's Qualtrics platform. At the beginning of each electronic survey, a full information sheet and consent/assent forms were provided (see Appendix C and D).

Approximately one week after the emails had been sent out, a member of the wider research team went into the year 6, 7 and 8 classrooms to give a brief presentation on the ETT research studies and the opportunity for participation. Students in these classes were all given a flyer (see Appendix E) which advertised the wider research project and provided further details of how students could participate. While the survey was live, a member of the research team returned to the school several times in an attempt to further boost student participation in the study. On these occasions, the study details were discussed in front of the year 6, 7 and 8 classes and advertising flyers were again made available. Before the survey closed during the first week of November, members of the research team returned to the school to inform the students the opportunity for participating would soon be closing. All students were offered a \$10 gift voucher for completing the survey as a *koha* honouring the value of adding their voice to this study.

The main selection criteria used within this project were that students had to be in years 6, 7 or 8 at the selected school and that parents/caregivers participating had to be the parent/caregiver of a child in one of those year groups. These selection criteria were used to guarantee that students completing the survey would have the written communication skills and cognitive ability to interpret and answer the questions.

### 2.3 Participants

A total of 68 students participated by accessing and completing at least some parts of the survey. Of those 68 students, two were excluded from the final study due to the volume of missing data or other problems with the survey response. The final 66

participants ranged from 10 to 13 years old, with 21 (32%) in year 6, 22 (33%) in year 7, and 23 (35%) in year 8. Across these students, 33 (50%) identified as female, 32 (49%) as male and 1 (1%) identified as gender diverse. Of the students who engaged in this study 45 (68%) had attended the selected school for more than five years, 13 (20%) students had been enrolled at the school for 2-4 years, and the remaining 7 (11%) were in their first year at the school. One student did not state how long they had been at the school.

## 2.4 Survey Development

The survey for this Student Pilot Test was developed after reviewing a large number of existing school climate and school belonging measures and after consultation with the ETT and school leadership teams. As ETT is a new initiative within Aotearoa New Zealand, there were no pre-existing measures available that were suitable for assessing the students' perspectives of how the three ETT mindsets were encouraged and supported in the classroom as well as in the school overall, thus custom scales were developed to assess those variables. The other measures in this study were developed from several pre-existing school climate scales including You et al.'s (2014) Brief-California School Climate Survey, Lee et al.'s (2017) School Climate and School Identification Measure, student version (SCASIM-St), Bear et al.'s (2015) Delaware School Climate Survey – Home, Aldridge and Ala'l's (2013) What's Happening in this School (WHITS) questionnaire, Schürer et al.'s (2021) 4 facet Gruppenkohäsion (group cohesion) scale (GruKo4), the revised version of the School Climate Measure by Zullig et al. (2015). To assess positive risk taking, items were drawn from Duell and Steinberg's (2020) Adapted Positive Risk Taking Scale. To assess school belonging, items were drawn from the school connectedness subscale of the Student Subjective Wellbeing Questionnaire (Renshaw et al., 2015).



Three key objectives directed the development of the survey. First, it was essential to ensure that all items were easily understood by older primary school students. Second, in the review of previous school climate measures, many of the instruments seemed quite long for older primary school students, thus we endeavoured to assess each construct with only four to six items. Third, items were selected based on their relevance to the three stands of ETT (You have value, We Succeed Together, and Others Matter) and key outcomes and/or moderators based on the ETT theory of change.

In conjunction with the collaborative evaluation objectives of this study, the process for finalizing the survey included the following steps: (a) several members of the wider research team reviewed all the items from the pre-existing surveys and selected those most relevant to the ETT initiative, grouping them according to their alignment with the three strands of ETT and select outcomes from the theory of change; (b) the wider research team met with the ETT team to review the items and develop customised items for variables that were not assessed by previous survey items; (c) the selected items were reviewed for relevance to a primary school context and comprehension by older primary school students with slight adjustments to the wording of some items; (d) the full student survey was pilot tested with three children, who were each interviewed about the survey after completing it online. Two of the students were in year 6 and one was in year 7. Two of the students went to the same participating primary school and thus had been exposed to ETT for the same length of time as the target participants and one student was from a different school that had recently begun implementing ETT. The interviews after the students completed the surveys sought feedback from the participants on the comprehensibility of the survey, students' interpretation of open-response questions, and anything that might be confusing

or raise questions about how to respond. Following pilot testing only two items were revised.

The final survey items, including their sources, can be found in Appendix F. The final 54-item survey included five demographic questions, 42 quantitative items and seven qualitative questions requiring written answers. All 42 of the quantitative items were answered on a 3-point Likert scale with available answers being “I disagree”, “I don’t know” or “I agree”. As the first intention of this Student Pilot Test is to assess the psychometric properties of the student survey, the individual items associated with each variable will be described in the first part of the Results chapter below.

## 2.5 Procedure

The eligible parents were first introduced to the study via email, sent out by the principal for the purpose of recruitment. All parents of students in years 6, 7 or 8 at the participating school were sent the recruitment email (see Appendix B). Through this email, parents were introduced to the study and provided with links to the parent information sheet and survey, and student survey. Parents were offered four options in response to the study; 1) not participate, 2) participate themselves, but not their child, 3) participate with their child, or 4) provide consent for their child to participate, but not participate themselves. If parents wished to participate or provide consent for their child to participate, they could do so through the online parental survey. At the beginning of the parental survey, the information sheet and detailed consent form were provided (see Appendix C). The parent survey was similar to the student survey but is not considered further as it is outside the scope of the present study.

Students were either first introduced to the study when their parents told them about the opportunity to participate after receiving the parental email, or when a member

of the research team visited the school and spoke to the year 6, 7 and 8 classes. Students were informed of the study and invited to participate several times when members of the research team visited the school. If students were interested in participating, students were told to ask their parents to refer to the email received from the principal for details of the study. Once parents provided access to the student survey, students were provided with the information sheet and an assent form for their participation (see Appendix D). The survey began following the completion of these sections (see Appendix F for the full list of items). First students provided information regarding their demographics, for example, their age, year at school, how long they had been at the school etc. Following this, students were asked a series of quantitative questions based on the three ETT strands. They then were asked to write reflections on ETT and what they thought of the initiative. Following this, they answered a mixture of quantitative and open-response qualitative questions on the implementation of ETT and the outcomes of the initiative at the school.

The survey was expected to take 10-20 minutes to complete for most students and was entirely conducted online at a convenient time and manner for each family. Across the final 66-person sample, the average completion time for the survey was 39 minutes (2346.92 seconds). On investigation of individual response durations, one student's response time was found to be 1,110 minutes (66,575 seconds), while three other students took longer than 85 minutes (8,100 seconds) to finish. As it was possible for surveys to be left open and pending submission, it seems apparent that these participants took this opportunity. Excluding these four outliers, the average response time was 19 minutes (1150.4 seconds). A few weeks after they had completed the survey, students' koha vouchers were delivered to the school and their parents were contacted to let them know that their child's voucher was ready to be collected.

## 2.6 Ethical Approval

The wider research study which is being conducted by Dr Myron Friesen and a small team of collaborators was reviewed and approved by the University of Canterbury Human Ethics Committee (Ref: HREC 2022/76) on the 5<sup>th</sup> of August 2022 (see Appendix A). As this particular thesis project (Student Pilot Test) is a subsection of this wider research study, ethical approval for this Student Pilot Test was achieved concurrently. Through the process of gaining ethical approval, several ethical concerns were highlighted, considered, and managed carefully by the research team. Of particular note, concerns were raised regarding 1) the recruitment procedure and how student/child privacy would be protected throughout the recruitment process, 2) ensuring that the only way students/children could access and thus participate in the study was through their parents' providing this link to them from the email sent to them, and 3) the consistent involvement and collaboration with the school throughout the research design and conduction stages. Furthermore, consent was gained from parents, with them having the option of consenting to their involvement and/or consenting to their child's involvement in the study. In addition to parent consent of the child's participation, child assent was obtained at the beginning of the student survey.

## 2.7 Data Analysis

Prior to analysis, a thorough examination of the data was conducted to ensure the data set was ready and suitable for the analyses I wished to conduct. This began with data cleaning, which comprised of removing the responses of the removed participants and identifying any missing responses to items. There were nine missing responses across the survey; eight of these were in response to qualitative items, while the only missing quantitative item was in response to the item gathering demographic information of how

long the student has attended the participating school. Once data cleaning was complete, the quantitative and qualitative data were analysed independently.

#### 2.7.1 Quantitative Analysis

All quantitative data analysis was conducted using IBM SPSS Statistics (Version 29.0.0.0 (241)). The first stage of quantitative data analysis involved reverse scoring the six items which needed to be reversed and scoring the quantitative responses. Following this, the descriptive statistics, frequencies, and normality statistics were analysed. Descriptive statistics are presented for each item and the computed composite variables exhibit the distribution of the data.

Addressing my first research aim, a series of Principal Components Analyses were conducted within key sections of the survey, based upon whether they were designed to be predictor variables, measure the subjective evaluation and impact of ETT, or measure student outcomes. The results from the PCA analyses indicated a slightly different factor structure than was anticipated for some sections of the survey and also identified specific items that needed to be removed. Using the new factor structure, the summed composite variables were produced, allowing me to analyse the subscales' descriptive statistics and conduct internal consistency assessments of each subscale.

To address research, aim two and three, comparisons of group differences (year level, gender, and length of time at school) were explored. Group differences were examined based on mean comparisons of the eight composite subscales according to gender and year level. It was not possible to examine group differences based on classrooms, as the distribution of students across each class was too small. Following this, correlation and regression analyses were conducted to examine whether the independent

variables predicted the outcomes as expected. Two simultaneous multiple linear regression tests were conducted using SPSS, and one two-step hierarchical multiple regression test was also used. Based on the results of the regression analyses tests for mediation and moderation effects were investigated.

#### 2.7.2 Qualitative Analysis

The qualitative component of this study mainly addresses the third research aim to “investigate how older primary school students (yrs. 6-8) reflect upon ETT and the changes they have experienced personally and seen within their classroom and school”. The qualitative component included responses to nine qualitative items. Of the 66 participants, and a total of 462 expected responses, only 8 individual items were left unanswered.

Thematic analysis was used to analyse the qualitative data (Braun & Clarke, 2006, 2022). Thematic analysis is highly versatile and allowed me to examine the qualitative data deeply and extract several themes across the students’ responses. Thematic analysis within this study was conducted for each question individually and followed the phases outlined by Braun and Clarke (2006, 2022). First, the raw qualitative data was read several times which allowed me to become deeply familiar with the responses students gave. During the initial review of these responses, brief notes were made based on what answers seemed to be reoccurring within each item and across the entire dataset. Following this, codes were produced based on the grouping of interesting and/or reoccurring segments of data for each item. In Phase 3 individual item codes were compiled and a list of potential themes were generated based on these. In this step, codes were grouped based upon similarities in definition or practical importance e.g., “being respectful”, “kinder”, “less bullying” and “more inclusion” were collated to generate a potential theme of “improving how students

treat others". In the final phase, the generated themes were reviewed by comparing them to responses from the raw data.

To promote inter-rater reliability of the finalised codes and themes, my primary supervisor took two random samples from the qualitative data set and coded the data sets blind (without seeing what codes I had produced). From this, the codes which remained consistent across our analyses were used, and the themes were named and defined. In the last few stages of the qualitative analysis, the proposed themes were collectively reviewed, defined, and finalised. These themes and the results of both quantitative and qualitative analyses are presented and discussed in the following chapter.

## Chapter Three – Results

This chapter presents the quantitative and qualitative findings respectively. First, quantitative results are presented, with the qualitative results of this study concluding this chapter. Opening the quantitative results, the psychometric properties of the Student Survey are addressed, including the results of the Principal Components Analyses conducted. Following this, investigations into group differences across the sample, and associations between the study variables are presented and interpreted. A summary of the quantitative results is provided before the qualitative results are outlined. The synthesis of findings is provided in the discussion chapter following.

### 3.1 Scale Development and Psychometric Properties

Tables 3.1, 3.2, and 3.3 below present the descriptive statistics of individual items across the entire survey (provided immediately next to the variable name). As described in Chapter 2, individual items were scored on a 3-point metric from negative one ('I disagree') to one ('I agree'). Thus, mean scores closer to one are indicative of greater agreement with that item across the sample. Looking at the individual items' mean scores, results show that responses to all but seven items averaged above zero and most standard deviations were small. This shows that students tended to 'agree' with most statements within the survey and that in general students tended to agree upon answers to individual items (select the same answer). Two of the seven items which received means below zero were reverse scored. These were "The students in my class are competitive (they like to win) and do not like it when others do better than they do" and "Most of the students do not pay any attention to E Tū Tāngata and those three themes". This is interesting, as it indicates a slight majority of students felt that their classmates were competitive, and also that they felt



there was a degree of disregard for the ETT themes within their peers. The other five items with means below zero indicate a tendency for disagreement among students in response to the individual items – this was expected for these items due to the way they were worded during design. Seven items returned exceptionally high means between 0.80 and 0.89, with the “when I make mistakes, it is an opportunity for me to learn” item receiving the highest mean. Analyses of individual items’ normality using Shapiro-Wilk and Kolmogorov-Smirnov tests were conducted. Results of both tests showed that all items were significantly skewed, with all 37 items showing highly statistically significant values on both tests. This further reinforces that the data was not normally distributed, however, this is not surprising given the restrictions placed on responses due to the 3-point metric.

### 3.1.1 Principal Component Analysis of Independent Variables

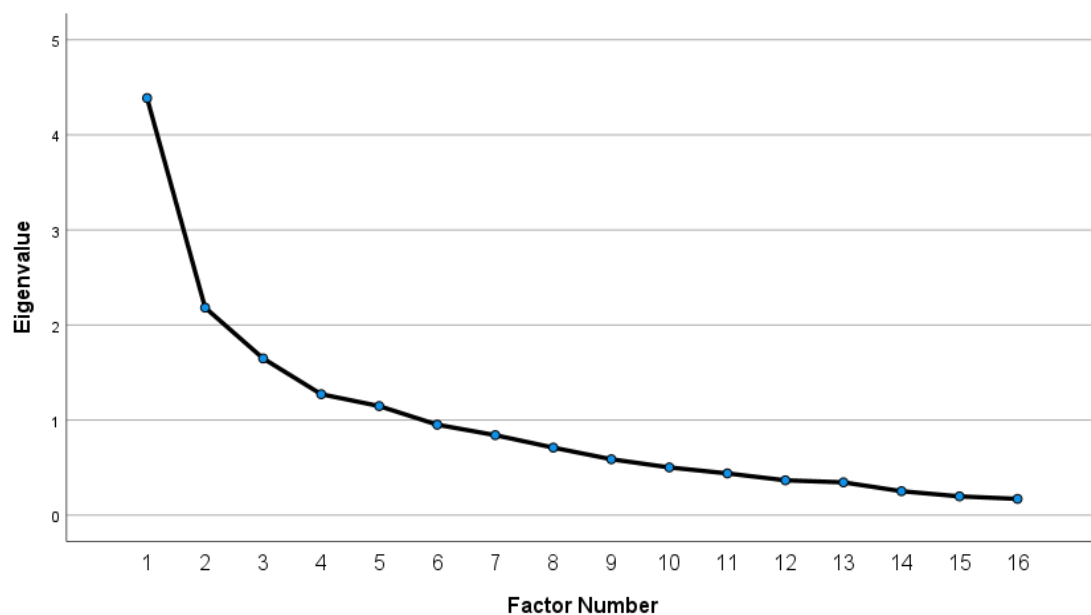
In addition to the descriptive statistics, Table 3.1 below presents the results of a principal component factor analysis (PCA) conducted on the independent variables assessing students’ perceptions of the ETT mindsets at the target school as predictors of school climate (student survey items 1-16). Column one (Items) lists the item in full as seen by the participants in the survey. Column two (Original Groupings) lists the original factor groupings, from the survey’s development. For example, when the survey was developed, we expected the first five items would combine as one factor reflecting the *You Have Value* mindset. The last four columns (1-4) show the factor loadings of a Direct Oblimin rotation with Kaiser Normalisation (resolved in 16 iterations) across a four-factor solution. Tables 3.2 and 3.3 follow an identical format for the Students’ Evaluations of ETT and Student Outcomes, respectively.

Before the factor analysis was conducted, a Kaiser-Meyer-Olkin (KMO) test, was conducted to assess whether factor analysis was a suitable method for analysing this

student data set (Kaiser, 1974). The KMO measure of sampling adequacy was 0.68, with Bartlett's Test of Sphericity being significant ( $\chi^2 = 371.04$ ;  $df = 120$ ;  $p \leq 0.001$ ). This indicated that factor analysis was a suitable test of the significant relationships present within the data, despite the substantial skew of individual items.

**Figure 3.1**

*Scree Plot of Items Measuring the E Tū Tāngata Predictor Variables*



In order to interpret the number of factors retained, I relied on the Scree plot (please see Figure 3.1) and factors which returned an eigenvalue above 1.0. The results of the PCA identified five factors which had sufficient eigenvalues. However, based on the change of the slope in the Scree plot from a vertical to a horizontal trend, indicating a substantial decrease in the ability of each additional factor to account for any substantial variance across the items, a four-factor solution was retained.

Direct Oblimin analysis is an oblique style of rotation (Richman, 1986) which assumes that factors within the dataset will be correlated, thus allowing for variable correlations between factors (Brown, 2009). This style of rotation was selected as significant

cross-over between the predictor variables and the ETT mindsets had been recognised and thus, correlations between the factors were expected (see Table 3.4 below for the correlations across the composite measures).

As shown in Table 3.1, it is evident that six items loaded onto factor one, which we have labelled *Social Inclusion*; three items loaded onto factor two, which we have labelled *I am Valued-Supported*; two items loaded onto factor three, which we have labelled *I am Valued-Respected*; and five items loaded onto factor four, which we labelled *Students Succeed Together*. Looking at the variance explained ( $r^2$ ) values, it can be seen that the first factor (*Social Inclusion*) accounts for 18.96% of the variance. This is followed by factor two with an  $r^2$  of 16.09, factor three with  $r^2=13.38$ , and factor four with  $r^2=18.84$ . Because the Direct Oblimin rotation procedure allows for factors to be correlated these variances cannot be summed together; nevertheless, each factor explains a meaningful proportion of the overall variance across items.

This analysis showed only limited groupings across items as was originally expected when designing the survey. While true, the *Valued-Supported* and *Valued-Respected* subscales included all of the retained *You Have Value* items, and the *Students Succeed Together* subscale included four of five retained *We Succeed Together* items. The *Social Inclusion* subscale included four of the five *Others Matter* items, as well as one *You Have Value* item and one *We Succeed Together* item. It was felt that this collection of items aligned the closest with ETT's *Others Matter* mindset; however, it is important to note that two of these items refer to socially inclusive behaviours of school staff rather than students and thus may better measure staff's modelling of *Social Inclusion*, rather than students' belief and enactment of the *Others Matter* mindset. These four subscales are assumed to

reasonably align with the ETT mindsets and thus will be used to measure students' perceptions of the ETT constructs at the target school as the independent variables.

As a result of the PCA factor loading scores, two items were removed due to cross-loading. Costello and Osborne (2005) state that cross-loading is the phenomenon when an item loads at  $\geq .32$  on two or more factors. When this occurs, they suggest that researchers should decide whether the cross-loading item should be removed or may benefit from rewording. Given this, and the high cross-loading of "My teacher cares about who I am and how I am doing" and "At this school, there is a place for everyone"(see Table 3.1), the decision was made to not include these items in the composite variables.

A final step in these analyses was to examine the reliability of each factor, as a distinct subscale (see Table 3.4 below). Factor one (*Social Inclusion*) returned the lowest internal consistency score ( $\alpha=.60$ ) with corrected item-total correlations (CITC) ranging from .31 to .46. Factor two (*Value-Supported*) showed adequate reliability ( $\alpha=.68$ ; CITC = .32 to .70), factor three (*Valued-Respected*) and factor four (*Students Succeed Together*) showed more acceptable internal consistency ( $\alpha=.78$ ; CITC = .64 (only 2 items) and  $\alpha=.75$ ; CITC .40 to .60, respectively).

**Table 3.1**

*Descriptive statistics and results from a principal components analysis of items assessing student perceptions of the E Tū Tāngata mindsets at the participating school*

Items ( <i>M</i> ; <i>SD</i> )	Original Groupings	1 (Social Inclusion)	2 (Valued & Supported)	3 (Valued & Respected)	4 (Students Succeed Together)
1. The teachers at this school care about everyone's success ( <i>0.83</i> ; <i>0.45</i> )	We Succeed Together	<b>.747</b>	-.052	.079	.126
2. The adults at this school try to make sure no one is left out ( <i>0.85</i> ; <i>0.47</i> )	Others Matter	<b>.686</b>	-.036	.183	-.170
3. There are a lot of people in this school who do not fit in (R) ( <i>0.17</i> ; <i>0.74</i> )	Others Matter	<b>.557</b>	.167	-.214	.017
4. There are only a few important students at this school, and everyone else is ignored (R) ( <i>0.64</i> ; <i>0.69</i> )	Others Matter	<b>.506</b>	.056	-.163	.308
(X). At this school, there is a place for everyone ( <i>0.80</i> ; <i>0.44</i> )	Others Matter	<b>.631</b>	-.029	.047	<b>.409</b>
(X). My teacher cares about who I am and how I am doing ( <i>0.80</i> ; <i>0.47</i> )	You Have Value	<b>.465</b>	<b>.401</b>	<b>.405</b>	-.265
<b>Social Inclusion (<math>r^2=18.96</math>)</b>					
1. There are people at this school who know what I'm good at, and what I like to do ( <i>0.82</i> ; <i>0.49</i> )	You Have Value	.134	<b>.857</b>	.077	-.054
2. If I need help or support, I know there are other people at this school who would be there for me ( <i>0.83</i> ; <i>0.45</i> )	You Have Value	.095	<b>.823</b>	-.120	-.006
3. There are people at this school who are interested in me ( <i>0.61</i> ; <i>0.55</i> )	You Have Value	-.228	<b>.545</b>	.212	.139
<b>I am Valued-Supported (<math>r^2=16.09</math>)</b>					
1. In my class, I feel respected ( <i>0.47</i> ; <i>0.68</i> )	You Have Value	.057	-.016	<b>.827</b>	.095
2. In my class, I feel valued ( <i>0.55</i> ; <i>0.64</i> )	You Have Value	-.038	.112	<b>.868</b>	.071
<b>I am Valued-Respected (<math>r^2=13.38</math>)</b>					
1. The students in my class try to help each other succeed ( <i>0.35</i> ; <i>0.73</i> )	We Succeed Together	.000	.240	-.121	<b>.743</b>
2. The students in my class are competitive (they like to win) and do not like it when others do better than they do (R) ( <i>-0.17</i> ; <i>0.74</i> )	We Succeed Together	-.151	-.102	.136	<b>.693</b>
3. I think most students in my class work well together ( <i>0.30</i> ; <i>0.76</i> )	We Succeed Together	.145	-.249	.058	<b>.684</b>
4. When I do something really well, my classmates are happy for me ( <i>0.18</i> ; <i>0.76</i> )	We Succeed Together	.119	.266	-.005	<b>.669</b>
5. At this school, students who are "different" in any way are treated with respect ( <i>0.59</i> ; <i>0.66</i> )	Others Matter	.259	.037	.209	<b>.496</b>
<b>Students Succeed Together (<math>r^2=18.84</math>)</b>					

*Note: Items marked with (R) were reverse coded but have been written as participants saw them. Descriptive statistics for these (R) items are those for the reversed scores. Items marked with (X) were removed due to cross-loading. Composite variables exclude removed items.*

### 3.1.2 Principal Component Analyses of Dependent Variables

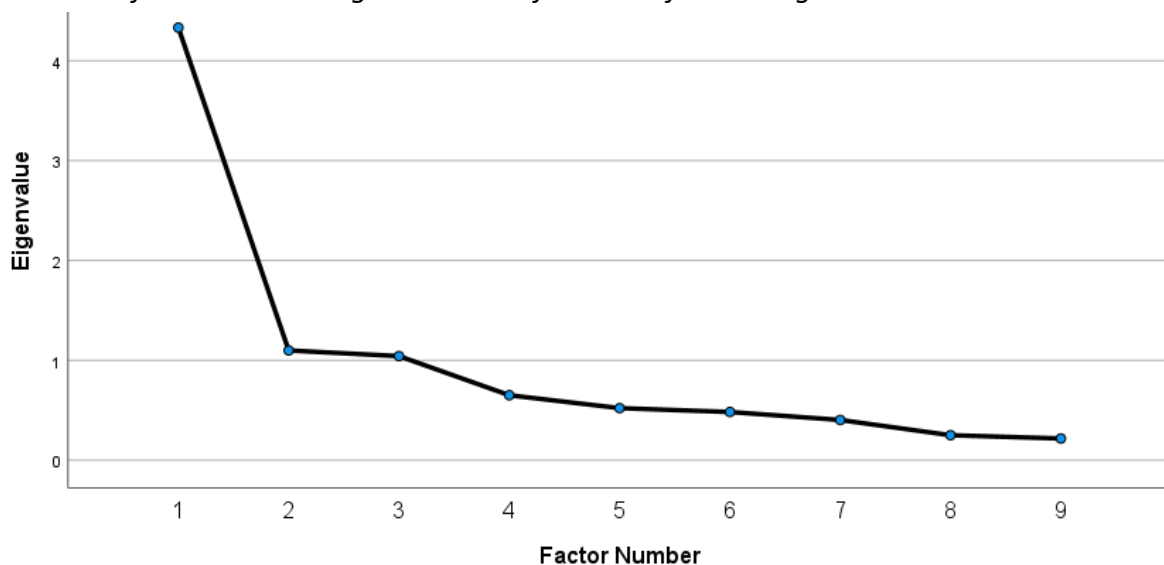
The descriptive statistics and results of the two PCAs conducted on the dependent variables are provided in Tables 3.2 and 3.3. Table 3.2 shows the results of the PCA from the items that assessed how students reflected upon the importance and influence of ETT. Whereas Table 3.3 shows the PCA results of the items investigating the expected student outcomes including school belonging, positive risk-taking, and students' responses to failure.

In preparation for the analysis of items measuring students' reflections of ETT, a KMO and Bartlett's Test of Sphericity were conducted. Results of the KMO (0.83) and Bartlett's Test of Sphericity ( $\chi^2 = 246.16$ ;  $df = 36$ ;  $p \leq 0.001$ ) indicated that factor analysis was suitable, despite the items being strongly skewed.

Similar to that of the predictor variables, the Scree plot and eigenvalues were used to distinguish the appropriate number of factors across these items. In Figure 3.2 below three factors received sufficient eigenvalues (above 1.0), however, the values for factors 2 and 3 were only marginally above 1 (1.09 and 1.04 respectively). Given this, and the

**Figure 3.2**

*Scree Plot of Items Measuring Students' Reflections of E Tū Tāngata*



dramatic difference between them and factor one, only the first factor was considered within the following results.

Once again Direct Oblimin Rotation was used and results of the PCA (see Table 3.2) show that all 10 items loaded onto factor one. Initially, it was assumed that these items would group into two factors (*Personal Importance* and *Global Evaluation*), however, results signal that these items are strongly measuring a single concept which we named *Subjective Evaluation and Personal Importance of ETT*. One item ( “The staff at this school talk about E Tū Tāngata, but most do not seem to practice it” – Item 24) substantially cross-loaded. Due to this, and our adherence to the threshold set by Costello and Osborne (2005), the decision was made to remove this item from the composite measure. Factor one was found to explain 48.13% of the variance across items. Together, the final nine items within this *Subjective Evaluation* subscale received an alpha value of  $\alpha=.86$  (CITC: .58 to .80), suggesting that this subscale had good internal consistency.

**Table 3.2**

*Descriptive statistics and results from a principal components analysis of items assessing the way students perceive and evaluate E Tū Tāngata and its impact*

Items ( <i>M</i> ; <i>SD</i> )	Original Groupings	1 (Subjective Evaluation)	2	3
1. E Tū Tāngata has been helpful for me ( <i>0.33</i> ; <i>0.79</i> )	Personal Importance	<b>.844</b>	-.248	-.151
2. It has been good for me to learn about E Tū Tāngata ( <i>0.50</i> ; <i>0.71</i> )	Personal Importance	<b>.765</b>	.377	-.327
3. E Tū Tāngata has helped change the way I think about myself ( <i>0.03</i> ; <i>0.86</i> )	Personal Importance	<b>.729</b>	.017	.023
4. At our school, E Tū Tāngata has NOT made any difference in how people treat each other (R) ( <i>0.11</i> ; <i>0.70</i> )	Global Evaluation	<b>.727</b>	-.119	.261
5. Because of E Tū Tāngata I am more careful about how I act and speak to other people ( <i>0.44</i> ; <i>0.75</i> )	Personal Importance	<b>.714</b>	.125	-.519
6. E Tū Tāngata, along with our school values, are a good way to help everyone succeed ( <i>0.79</i> ; <i>0.51</i> )	Global Evaluation	<b>.701</b>	.299	-.048
7. Most of the students do not pay any attention to E Tū Tāngata and those three themes (R) (- <i>0.03</i> ; <i>0.84</i> )	Global Evaluation	<b>.656</b>	-.293	.462
8. E Tū Tāngata has helped everyone feel safe and included at this school ( <i>0.33</i> ; <i>0.73</i> )	Global Evaluation	<b>.601</b>	-.596	.025
(X). The staff at this school talk about E Tū Tāngata, but most do not seem to practice it (R) ( <i>0.32</i> ; <i>0.71</i> )	Global Evaluation	<b>.428</b>	<b>.578</b>	<b>.599</b>
<b>Subjective Evaluation and Personal Importance of ETT (<math>r^2=48.13</math>)</b>				
<i>Note: Items marked with (R) were reverse coded but have been written as participants saw them. Descriptive statistics for these (R) items are those for the reversed scores. Items marked with (X) were removed due to dual loadings. Composite variables exclude removed items.</i>				

The final section of the Student Survey investigated the predicted student outcomes from the theory of change. Initial KMO testing showed that factor analysis was again a suitable methodology for analysing these items (Kaiser, 1974) despite the skewed distribution of responses, and thus was used. The KMO test was acceptable (0.78), and Bartlett's Test of Sphericity was statistically significant ( $\chi^2 = 542.80$ ;  $df = 136$ ;  $p \leq 0.001$ ).

The Scree plot shown in Figure 3.3 shows the distribution of factors available within this item group based upon the PCA using Direct Oblimin rotation, with Kaiser



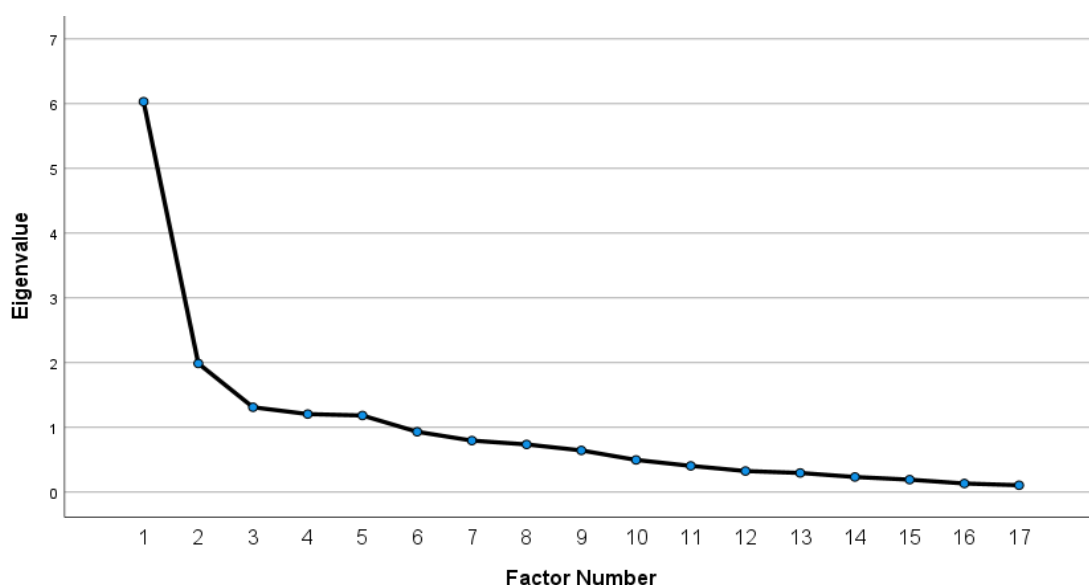
Normalisation. Five factors obtained sufficient eigenvalues above 1.0. While five factors were presented, only a three-factor solution was progressed with due to the lower level of variance accounted for by factors four and five, and the change in the Scree plot slope.

Results of the PCA are presented in Table 3.3 below. Within this, 10 items loaded clearly to factor one (*School Belonging and Acceptance*), three loaded onto factor two (*Achievement Pressure*) and four loaded onto factor three (*Insecure Responses to Failure*). Factor one was responsible for 33.25% of the variance, while factors two and three were responsible for 13.82% and 13.28% respectively. While these  $r^2$  values cannot be summed together, each factor again explains a meaningful proportion of the variance across outcome items.

Comparing the groupings proposed by the PCA and those originally expected when designing the survey, it can be seen that the five *School Belonging* items and the five *Positive Risk-Taking* items have been combined to create factor one (*School Belonging and Acceptance*). This suggests that rather than the five Positive Risk-Taking items being a

**Figure 3.3**

*Scree Plot of Items Measuring the proposed E Tū Tāngata Outcomes*



measure of a unique student outcome, responses to the items suggest that there is a close alignment between them and the *School Belonging* items which are better explained by a combined subscale epitomising *School Belonging and Acceptance*. Additionally, the seven *Responses to Failure* items were found to be better split into two distinct subscales; *Achievement Pressure*, measuring the perceived pressure students feel to achieve, and *Insecure Response to Failure*, assessing how students respond to mistakes and failures at school.

Continuing to look at Table 3.3 it is clear that three items had substantial cross-loadings to other factors: “I feel that people are only happy with me when I get things right”, “At this school I feel I can try a new activity even if I don’t think I will be very good at it”, and “When I make mistakes, it is an opportunity for me to learn” (Costello & Osborne, 2005). Given this, the last two items for factor three were removed from the final survey. A decision was made to retain the item, “I feel that people are only happy with me when I get things right”, as the difference between the two loadings was large, with the item loading more to factor two than factor one.

Finally, a reliability analysis was conducted on the three subscales presented by the PCA (see Table 3.4). Factor one (*School Belonging and Acceptance*) received the highest internal consistency score ( $\alpha=.88$ ) with corrected item-total correlations (CITC) ranging from .37 to .76. Factor two (*Achievement Pressure*) also showed acceptable internal consistency ( $\alpha=.72$ ; CITC range from .29 to .72). Factor three (*Insecure Responses to Failure*) however received a low alpha score ( $\alpha=.52$ ;  $r$  for the two items = .357) suggesting the subscale has limited internal consistency.

**Table 3.3**

*Descriptive statistics and results from a principal components analysis of items assessing student outcomes as a result of E Tū Tāngata*

Items ( <i>M</i> ; <i>SD</i> )	Original Groupings	1 (School Belonging & Acceptance)	2 (Achievement Pressure)	3 (Insecure Responses to Failure)
1. I'm glad I go to this school ( <i>0.67</i> ; <i>0.62</i> )	School Belonging	<b>.840</b>	.024	.077
2. This is a good school to be a part of ( <i>0.68</i> ; <i>0.61</i> )	School Belonging	<b>.825</b>	-.171	-.045
3. I feel like I belong at this school ( <i>0.59</i> ; <i>0.66</i> )	School Belonging	<b>.777</b>	.156	-.025
4. At this school, I feel like I am a part of a community ( <i>0.48</i> ; <i>0.71</i> )	School Belonging	<b>.743</b>	.262	-.134
5. I feel like I can be myself at this school ( <i>0.53</i> ; <i>0.64</i> )	School Belonging	<b>.705</b>	-.149	.140
6. At this school I feel I can join a new group even if I'm not sure I will fit in ( <i>0.05</i> ; <i>0.85</i> )	Positive Risk Taking	<b>.643</b>	.025	.001
7. At this school I feel I can ask questions without being judged ( <i>0.08</i> ; <i>0.85</i> )	Positive Risk Taking	<b>.620</b>	.178	.061
8. At this school I feel I can talk to people I don't know very well ( <i>0.27</i> ; <i>0.71</i> )	Positive Risk Taking	<b>.593</b>	.074	-.096
9. At this school I feel I can answer questions and share ideas, even if I'm not sure they are very good ( <i>0.48</i> ; <i>0.71</i> )	Positive Risk Taking	<b>.570</b>	.296	.052
10. At this school I feel I can be honest about what I think, even if people may not agree with me ( <i>0.41</i> ; <i>0.76</i> )	Positive Risk Taking	<b>.500</b>	-.282	.083
<b>School Belonging and Acceptance (<math>r^2=33.25</math>)</b>				
1. I feel that people are only happy with me when I do things well ( <i>-0.30</i> ; <i>0.76</i> )	Response to Failure	-.224	<b>.829</b>	-.022
2. I feel that people are only happy with me when I get things right ( <i>-0.29</i> ; <i>0.82</i> )	Response to Failure	<b>-.350</b>	<b>.757</b>	-.033
3. When I do not succeed at something, it shows I do not have enough talent ( <i>-0.55</i> ; <i>0.71</i> )	Response to Failure	.188	<b>.534</b>	-.311
<b>Achievement Pressure (<math>r^2=13.82</math>)</b>				
1. When I make mistakes, I feel that people will be disappointed in me ( <i>-0.27</i> ; <i>0.83</i> )	Response to Failure	.034	-.172	<b>.764</b>
2. When I do not achieve very well, I feel like giving up ( <i>-0.39</i> ; <i>0.72</i> )	Response to Failure	.151	-.031	<b>.677</b>
(X) At this school I feel I can try a new activity even if I don't think I will be very good at it ( <i>0.64</i> ; <i>0.67</i> )	Positive Risk Taking	<b>.386</b>	-.052	<b>.567</b>
(X). When I make mistakes, it is an opportunity for me to learn ( <i>0.89</i> ; <i>0.36</i> )	Response to Failure	<b>.354</b>	-.060	<b>-.489</b>
<b>Insecure Response to Failure (<math>r^2=13.28</math>)</b>				
<i>Note: Items marked with (R) were reverse coded but have been written as participants saw them. Descriptive statistics for these (R) items are those for the reversed scores. Items marked with (X) were removed due to dual loadings. Composite variables exclude removed items.</i>				

### 3.1.3 Descriptive Statistics of the Subscale Composites

Table 3.4 below presents the descriptive statistics of the finalised composite scales as a result of the three PCAs described above. Within the final student survey, eight distinct scales were identified across 37 items (see Tables 3.1, 3.2 and 3.3). Any removed items, as a result of factor analyses, were excluded from the final scale composites. An interpretation of the descriptive statistics of these composite variables is discussed below.

Six of the eight composite subscales had mean scores above the midpoint of zero. This suggests that the majority of students tended to agree with items within each subscale and implies that students largely (a) reported feeling *Supported* and *Respected* at their school, (b) felt that their peers were more collaborative and encouraging than competitive (*Succeeded Together*), c) reported that school students and staff were accepting and embracing of all students within the school (*Social Inclusion*), d) reflected positively upon ETT and its implementation, and e) felt a sense of connection and *belonging* to the school they attend. Both *Achievement Pressure* and *Insecure Responses to Failure* returned mean scores below zero, suggesting that the majority of students seemed to disagree with items within these scales, indicating that they did not report feeling pressure to achieve highly, nor did they tend to respond in an insecure manner to mistakes or failures in the classroom.

Looking at the distribution statistics, participant responses covered the full range of scores, except for the *Valued-Supported*, *Social Inclusion*, and *Subjective Evaluation* subscales, where no participants responded with “I disagree” to all scale items. The moderately large standard deviation scores and skew and statistics indicate that while the majority of students tended to recognise ETT’s mindsets within the school and their obtainment of the identified outcomes, there was still a degree of variance within student

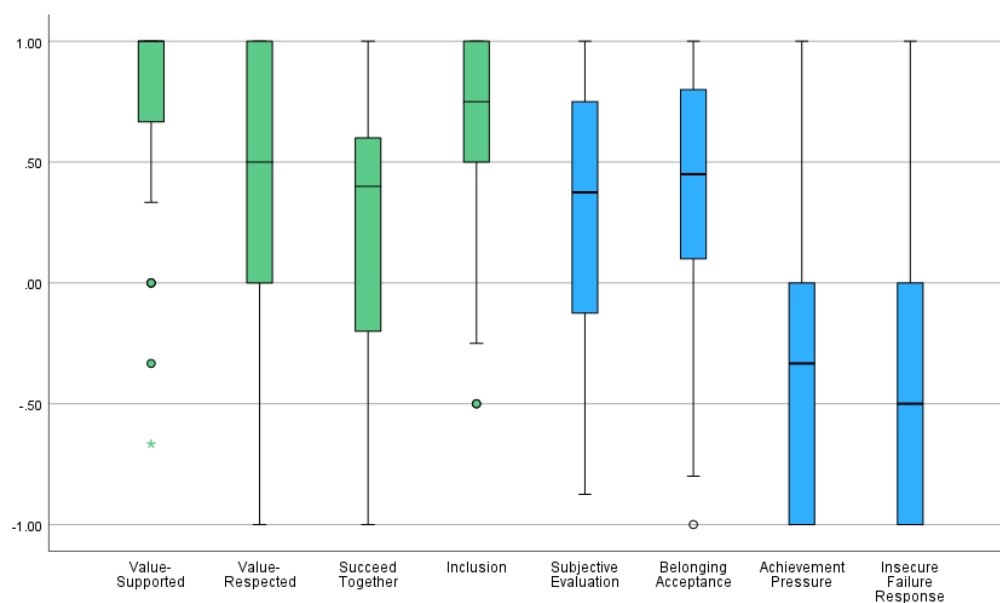
responses to items, with a small portion of students contrasting the majority response. The Box and Whisker plot in Figure 3.1 better illustrates this distribution of responses. The upper and lower quartiles for four of the subscales (*Valued-Supported*, *Valued-Respected*, *Social Inclusion and School Belonging*) were above zero - this indicates that more than 75% of responses to these combined items fell above the midpoint of zero, suggesting majority agreeance to items. Responses were so consistent to the *Valued-Supported* items that 86.4% of students selected “I agree” to both items, while only three students selected “I disagree” in response to any of the three subscale items. *Students Succeed Together* and *Subjective Evaluation* of ETT, however, had a greater variation in responses to the other subscales, yet still indicated a largely positive response. In contrast, the *Achievement Pressure* and *Insecure Responses to Failure* plots indicate that only 25% of the participants agreed with items within these subscales, reinforcing that the majority of students reported low levels of *Achievement Pressure* and *Insecure Responses to Failure* at their school. Overall, the majority of students within this sample seemed to believe that their school is engaging with and demonstrating the ETT mindsets, believe the implementation and importance of ETT were largely beneficial to them and their school, and seem to have obtained many of the proposed outcomes. While there was variance in responses to the survey items, only a small portion of the participants contradict the majority response.

**Table 3.4***Descriptive Statistics of Subscale Composite Variables*

Subscale Composite	# of Items	Min	Max	<i>M</i>	<i>SD</i>	$\alpha$	CITC	Skew	Kurtosis
1. Valued - Supported	3	-0.67	1.00	0.75	0.39	.68	.32 to .70	-2.14 ( <i>SE</i> =.30)	4.72 ( <i>SE</i> =.58)
2. Valued - Respected	2	-1.00	1.00	0.51	0.60	.78	$r = .64^a$	-1.09 ( <i>SE</i> =.30)	0.35 ( <i>SE</i> =.58)
3. Students Succeed Together	5	-1.00	1.00	0.25	0.52	.75	.40 to .60	-0.61 ( <i>SE</i> =.30)	-0.13 ( <i>SE</i> =.58)
4. Social Inclusion	4	-0.50	1.00	0.62	0.40	.60	.31 to .46	-1.10 ( <i>SE</i> =.30)	0.47 ( <i>SE</i> =.58)
5. Subjective Evaluation and Personal Impact	8	-0.87	1.00	0.31	0.53	.86	.58 to .80	-0.50 ( <i>SE</i> =.30)	-0.78 ( <i>SE</i> =.58)
6. School Belonging & Acceptance	10	-1.00	1.00	0.42	0.49	.88	.37 to .76	-0.99 ( <i>SE</i> =.30)	0.54 ( <i>SE</i> =.58)
7. Achievement Pressure	3	-1.00	1.00	-0.38	0.61	.72	.29 to .72	0.45 ( <i>SE</i> =.30)	-1.12 ( <i>SE</i> =.58)
8. Insecure Response to Failure	2	-1.00	1.00	-0.33	0.64	.52	$r = .36^a$	0.47 ( <i>SE</i> =.30)	-0.92 ( <i>SE</i> =.58)

Note: *N*=66; *M* = mean, *SD* = standard deviation,  $\alpha$  = alpha reliability coefficient, CITC = corrected item-total correlations.

<sup>a</sup>As *Valued-Respected* and *Insecure Response to Failure* only had two items, the correlation is reported rather than the corrected item-total correlations.

**Figure 3.4***Box and Whisker Plot of the Student Survey Composite Variables*

### 3.2 Group Differences

Before investigating the quantitative associations between ETT and the expected student outcomes, it is important to examine whether there were any associations between the demographic variables and any of the composite variables. These analyses examined group differences across students' year level and gender via analysis of variance (ANOVA) with additional post-hoc tests for students' year level. Associations between students' length of time at the school and the composite variables were examined with correlational analyses. Only one marginally significant association was found ( $p=0.057$ ) between gender and *Students Succeed Together*, with girls reporting substantially higher perceptions ( $M=1.80$ ;  $SD=2.61$ ) of student collaboration and support than boys ( $M=0.6$ ;  $SD=2.47$ ), with a moderate effect size (Cohen's  $d = 0.47$ ). However, given the large confidence intervals ( $-0.41$  to  $1.33$ ), these results should be treated with caution. The analyses revealed no other significant group differences across the demographic variables in relation to the study variables and no associations with the length of time students had been at the target school. The results here suggest that students are self-reporting similar effects and interpretations of ETT, regardless of their year level, gender, or the length of time they have been at the participating school. As students are nested within classrooms, it would have been appropriate to explore group differences across classrooms. Unfortunately, this was not feasible due to the high number of classrooms (14) and the low distribution of students across each one.

### 3.3 Associations between Independent and Dependent Variables

#### 3.3.1 Correlation Matrixes

The full table presenting the bivariate zero-order correlations across the eight study variables can be found in Table 3.5 below. In terms of the associations across the four

variables representing how the ETT strands were perceived by students to be operating at the school, Table 3.5 shows small positive associations between each of these independent variables, with four of the six being statistically significant. Students who reported feeling more *Valued-Supported* at school were more likely to also report feeling both *Valued-Respected* and that their school was a socially inclusive environment. Students who reported higher feelings of respect at the participating school were more likely to also report greater collaboration and mutual success among their peers. Finally, students who reported higher scores of *Students Succeeding Together* also reported more *Social Inclusion* within their school environment – this was the strongest of the associations between the independent variables.

The correlation matrix in Table 3.5 also shows the associations between the four dependent variables. Three of the six bivariate correlations between dependent variables were positive and statistically significant. Students' *Subjective Evaluations* of ETT were positively and significantly associated with students' reports of *School Belonging*. This association was the strongest of those between dependent variables and indicates that students who reported positively on ETT also seemed to have a stronger sense of connection to their school. Those students who reported feeling a greater sense of *School Belonging* were less likely to report feeling *Achievement Pressure* at school, this is most clearly indicated by the negative bivariate correlation score between these two variables. Finally, students who reported increased feelings of *Achievement Pressure* were more likely to report an increased likelihood of *Insecure Responses to Failure* at school. This appears to make sense as with increased pressure to do well at school, is likely to come greater disappointment and insecurity when failures and mistakes are made.



**Table 3.5***Bivariate Correlations between Composite Variables*

	1	2	3	4	5	6	7	8
1. Valued-Supported	-							
2. Valued-Respected	<b>.273*</b>	-						
3. Students Succeed Together	.182	<b>.263*</b>	-					
4. Social Inclusion	<b>.258*</b>	.107	<b>.371**</b>	-				
5. Subjective Evaluation	.153	.020	<b>.545**</b>	<b>.337**</b>	-			
6. School Belonging & Acceptance	<b>.319**</b>	<b>.416**</b>	<b>.404**</b>	<b>.389**</b>	<b>.553**</b>	-		
7. Achievement Pressure	-.198	<b>-.412**</b>	-.125	-.143	-.036	<b>-.381**</b>	-	
8. Insecure Response to Failure	-.213	<b>-.375**</b>	-.064	-.005	-.059	-.128	<b>.340**</b>	-

Note: \* correlation is significant at the 0.05 level (2-tailed) and \*\* correlation is significant at the 0.01 level (2-tailed)

The final 16 correlations presented in Table 3.5 represent the strength of associations between the four independent variables and the four outcome variables. Six of the 16 associations were statistically significant, though, the directionality of these associations differed based on the variables. *Valued-Supported* was only significantly associated with *School Belonging and Acceptance*, highlighting that when students felt both valuable and supported at school, they were more likely to report a greater sense of connection to their school community. While the relationship between *Valued-Supported* and *Insecure Responses to Failure* was not statistically significant at the  $p=0.05$  level, the association between variables was marginally significant ( $p=0.087$ ). Students' reports of feeling *Valued-Respected* was significantly associated with three of the four dependent variables. This showed that the more respected students felt at school, the greater sense of belonging they reported, and the less *Achievement Pressure* and *Insecure Responses to Failure* they experienced. How collaborative and socially inclusive students felt the participating school was (as measured by the *Students Succeed Together* and *Social Inclusion* variables) influenced how positively students evaluated ETT and how strong the sense of

*School Belonging* they reported was. As such, students who saw the school environment as a collaborative, supportive and inclusive space were more likely to report a sense of belonging to the participating school and reflect positively upon ETT.

Overall, these correlations suggest that within this student population, some significant associations exist between the predictor variables, the outcomes variables and between the predictor and outcome variables as suggested by the ETT ToC. In particular, students' perceptions of the E Tū Tāngata mindsets, especially *You Have Value* and *Others Matter* measured by the two *Valued-Supported* and *Valued-Respected* variables, were significantly associated with many of the proposed outcomes.

### 3.3.2 Multiple Regression Analysis

The purpose of the multiple regression analyses was to examine the combined utility of the four variables assessing the ETT mindsets as predictors of each outcome from the ETT ToC. Three multiple regression analyses were conducted. As *Achievement Pressure* was only significantly associated with *Valued-Respected*, there was no need to explore any further analyses with this outcome. The first analysis utilised a simultaneous multiple regression with *Subjective Evaluation* regressed on *Students Succeed Together* and *Social Inclusion*. The next analysis examined how all four of the independent variables collectively predicted *School Belonging and Acceptance*. The final analysis examined how the two *Valued*-variables predicted *Insecure Response to Failure*. Even though *Valued-Supported* was not significantly associated with *Insecure Response to Failure* at the conventional .05 cut-off, given the marginal significance and strength of the association, as well as the fact that both predictor variables measure the same *You Have Value* mindset, I decided to retain it in the multiple regression.

To investigate the combined utility of *Students Succeeding Together* and perceptions of school *Social Inclusion* as predictors of the *Subjective Evaluations* of ETT, a simultaneous multiple regression analysis was conducted (see Table 3.6 below). Although the  $R^2$  value reveals that almost one-third of the variance in students' *Subjective Evaluations* of ETT was explained by the two predictors, *Students Succeeding Together* was the only significant predictor, with a moderately strong effect; whereas the contribution from students' sense of *Social Inclusion* was largely reduced and was no longer significant. Given that the bivariate correlations between the independent variables were weak, it is not surprising that multicollinearity does not appear to be an issue with this analysis, and the results of the tolerance and variance inflation factor (VIF) analyses support this.

The results of this regression analysis suggest that an indirect effect may be present between these variables, with students' perceptions of *Succeeding Together* potentially mediating the association between students' reports of *Social Inclusion* and their *Subjective Evaluations* of ETT. Tests of these mediation effects were conducted using the method proposed by Baron and Kenny (1986), while the significance of the indirect pathway was tested using Preacher and Leonardelli's (2023) Sobel Test Calculator. The total effect between *Social Inclusion* and *Subjective Evaluation*, based upon the unstandardised beta value ( $B=0.886$ ) statistically significant ( $p = .006$ ). The results of the mediation analysis revealed a significant indirect effect of *Students Succeed Together*, on the association between *Social Inclusion* and *Subjective Evaluation of ETT* ( $Z=0.725$ ;  $p<0.001$ ). As the indirect effect was significant, and the direct effect substantially decreased with the inclusion of the mediator variable (*Students Succeed Together*), results suggest that this relationship was fully mediated by *Students Succeed Together* in this data set. This suggests that students' reports of *Social Inclusion* at school impact how they perceive *Students*

*Succeeding Together*, which consequently influences students' *Subjective Evaluation of ETT and its Personal Importance*.

**Table 3.6**

*Multiple Regression Analysis of Students Succeed Together and School Social Inclusion as Predictors of Students' Subjective Evaluation of E Tū Tāngata*

Variable	Unstandardised B (SE)	Standardised B (p)	Tolerance (VIF)
Students Succeed Together	.503 (SE=.116)	.488 (p=<0.001)	.862 (VIF=1.16)
Social Inclusion	.205 (SE=.147)	.156 (p=0.169)	.862 (VIF=1.16)
<b>Model 1: <math>R^2=.319</math> (SE=3.57)</b>			
<i>Note: Dependent Variable = Subjective Evaluation; N=66; F=14.72 (df=2; p=&lt;0.001)</i>			

To investigate the degree to which the four ETT variables predicted *School Belonging and Acceptance*, another simultaneous multiple linear regression was conducted (see Table 3.7 below). The  $R^2$  values suggest that the four predictors explained just over one-third of the variance in how students rate their sense of *School Belonging and Acceptance*.

Compared to the bivariate correlations, the standardised coefficients in Table 3.7 show that the strength of association between *School Belonging* and any one predictor was largely reduced when also considering the other independent variables. Three of the four predictor variables continued to make a statistically significant contribution to students' reports of *School Belonging and Acceptance*, with *Students Succeed Together's* contribution being only marginally significant. Once including the other variables, students' reports of feeling *Valued-Supported* no longer made a significant contribution to their reports of school belonging. *Valued-Respected* remained the strongest predictor of *School Belonging and Acceptance*. The influence of *Students Succeed Together* was substantially reduced and only influenced *School Belonging and Acceptance* in a marginally significant way. The association

of *Social Inclusion* with *School Belonging* also reduced, however, remained statistically significant. Once again multicollinearity was not a concern within this analysis, as depicted by the tolerance and *VIF* variables in the table below.

Interestingly, this regression analysis begins to highlight that the ETT mindsets are rather distinctly associated with the dependent variables. For example, in this analysis *Students Succeed Together* is a relatively weak predictor of the dependent variable, yet was a strong, significant predictor of the dependent variable, *Subjective Evaluation* in the previous regression analysis.

**Table 3.7**

*Multiple Regression Analysis of the E Tū Tāngata Variables as Predictors of School Belonging and Acceptance*

Variable	Unstandardised B (SE)	Standardised B (p)	Tolerance (VIF)
Valued-Supported	.172 (SE=.140)	.137 (p=.222)	.871 (VIF=1.148)
Valued-Respected	.244 (SE=.091)	.297(p=.009)	.877 (VIF=1.140)
Students Succeed Together	.201 (SE=.109)	.211(p=.071)	.811 (VIF=1.233)
Social Inclusion	.296 (SE=.138)	.244 (p=.036)	.823 (VIF=1.215)
<b>Model R<sup>2</sup>=.347 (SE=0.41)</b>			
<i>Note: Dependent Variable = School Belonging and Acceptance; N=66; F =8.11 (df=4; p=&lt;.001)</i>			

A simultaneous multiple regression test was conducted to investigate how students' feelings of being *Valued-Supported* and *Valued-Respected* predicted students' reduced *Insecure Responses to Failure* (see Table 3.8 below). As mentioned above, although the bivariate association between *Valued-Supported* and *Insecure Responses to Failure* was only marginally significant ( $p=0.087$ ), the variable was retained in this analysis due to both *Valued-* variables measuring the same *You Have Value* mindset. The total  $R^2$  value indicates that the variability in students' *Insecure Responses to Failure* may be explained by students'

reports of feeling *Valued-Supported* and *Valued-Respected*, although the marginal contribution of *Valued-Supported* completely dissipated when considering *Valued-Respected* and thus, was not a significant contributor. Students' reports of being *Valued-Respected*, however, remained a strong and significant predictor of reducing students' *Insecure Responses to Failure*. Once again multicollinearity does not appear to be an issue, based on the tolerance and VIF variables, as well as the weak bivariate correlations between the independent variables.

**Table 3.8**

*Multiple Regression Analysis with Valued-Supported and Valued-Respected Predicting Insecure Response to Failure*

Variable	Unstandardised B (SE)	Standardised B (p)	Tolerance (VIF)
Valued/Supported	-.196 (SE=.198)	-.119 (p=.326)	.926 (VIF=1.08)
Valued/Respected	-.367 (SE=.129)	-.342 (p=.006)	.926 (VIF=1.08)
<b>Model 1: <math>R^2=.154</math> (SE=0.60)</b>			
Note: Dependent Variable = <i>Insecure Responses to Failure</i> ; N=66; F=5.72 (df=2; p=.005)			

### 3.3.3 Exploring Moderation Effects

As students' *Subjective Evaluation* of ETT was moderately strongly associated with students' sense of *School Belonging and Acceptance*, a series of follow-up analyses explored the possibility that students' *Subjective Evaluation* of ETT may act as a moderating variable in its association with the ETT variables. To accomplish this, each of the variables were mean-centred to reduce the threat of multicollinearity and the interaction term of *Subjective Evaluation* with *Students Succeed Together* and *Social Inclusion* were added in separate hierarchical regression analyses. Results showed that the increase in explained variance was minimal, and neither interaction term was statistically significant (standardized

coefficients of the interaction terms =  $-.110$  and  $-.152$  for *Valued-Respected and Social Inclusion*, respectively).

### 3.4 Summary of Quantitative Results

The quantitative results described above aim to address this Student Pilot Test's first, second and third research aims. In response to the first research aim concerning the psychometric properties of the ETT student survey, a new subscale structure was identified with eight subscales, including a total of 37 survey items. Analyses of internal consistency suggested that the majority of these subscales had acceptable reliability, although the *Insecure Responses to Failure* subscale did not meet conventional standards suggesting the items within this scale may need to be reconsidered. The second and third research questions investigated students' experiences with ETT and how these seem to influence their sense of school belonging and the way they approach learning and manage pressures to achieve. No specific group differences were identified, which suggests that ETT is not appealing any more or less to a specific cohort of students across the variables that were examined (gender, year level and length of time at the school). Students' positive subjective evaluations of the impact of ETT initially correlated positively with the *We Succeed Together* mindset and *Social Inclusion* subscale. However, after the multiple regression analyses and follow-up tests of mediation, the results suggest that students' reports of *Students Succeeding Together* mediated the relationship between *Social Inclusion* and *Subjective Evaluation of ETT*. The remaining regression analyses showed that students' reports of *Valued-Respected* and *Social Inclusion* were the strongest predictors of *School Belonging and Acceptance*, whereas students' tendency to respond insecurely to failure was also significantly predicted by the *Valued-Respected* subscale. Overall, the quantitative results

seem to address the three research questions of the study and can be supplemented by the qualitative findings below.

### 3.5 Qualitative Results

The qualitative results presented below were analysed using thematic analysis (Braun & Clarke, 2006, 2022), following the method discussed in Section 2.7.2. The qualitative answers to the Student Survey questions, provide more depth and another perspective to the quantitative results discussed above. It is a common misconception that numbers do not belong in qualitative research, and due to this, the quantification of qualitative data tends to be avoided. However, Sandelowski (2001) presents that numbers are an integral part of qualitative research and are essential to generate significance and meaning behind qualitative data. Given this, there are a few times within this chapter where I found it favourable to quantify the responses given and thus frequencies have been provided to demonstrate trends within the qualitative data.

Across the qualitative findings, students generally positively reflected upon ETT and implied that the initiative had had a positive influence on their perceptions of school since its integration two years ago. As mentioned above, participants' answers to the qualitative questions were generally short; however, six students were particularly articulate and responded to most items with more detailed responses (two to six sentences). Those who took the time to develop the longest responses often provided several specific examples of ETT's effect, how the initiative was implemented and how it has been received at school. The "How is E Tū Tāngata going in your classroom? How is it used?" item returned the most detailed answers from students, with the first two items "How would you describe E Tū Tāngata to someone who had never heard of it?" and "What do you like about E Tū



Tāngata?” coming closely behind. In contrast, the items “Is there anything you do NOT like about E Tū Tāngata?” and “Have you talked about E Tū Tāngata with people who are not from your school? Please describe what happened” received the shortest answers, with most students responding with just a single word. These considerations are important in deciding which items should be used again in the final survey, and in indicating which may need to be redeveloped.

### 3.5.1 Results of Individual Items

The first qualitative question asked students “How would you describe ETT to someone who had never heard of it” was designed to assess students’ understanding of the three ETT stands. Responses to this question varied significantly; however, many students described within their answers that ETT promotes positive behaviour and influences behavioural norms at school. In particular, students noted that ETT teaches “respect” and how to “be kind” to others, which has been described to improve the way you think about yourself, and the way you treat those around you. Interestingly, *respect* is one of the target school’s core values. One-third of students listed at least one of the ETT mindsets within their answer, with *You Have Value* being mentioned most frequently. Two participant’s responses have been provided below as they are representative of all the responses provided by students and seem to integrate the key aspects of ETT students seem to report in response to this item:

*“E Tū Tāngata is a saying which means you have value, others matter, and we succeed together, and if everyone does those three things and thinks them, they will be a kind, caring and positive person” (P52)*

*“A programme led by our teachers (although not created by them) to help students feel safe and respected and to teach them to respect others” (P41)*

Interestingly, a substantial proportion of students described ETT as a set of “values” in their responses to this item, with a small number of them seeming to confuse the ETT mindsets with the five school values or personal values people have.

Throughout their responses to the seven qualitative items, students favoured the use of positively connotated terms to describe ETT, with “great”, “awesome” and “amazing” being used often. When specifically asked, “What do you like about ETT?”, students most frequently responded that they liked how everyone had become “kinder” and more “respectful”, while several specifically noted liking the ETT song and the three ETT mindsets. A couple of students even wrote that they liked “everything” about ETT.

Of the 66 students, few seemed to have negative things to say about ETT. In response to being asked, “Is there anything you do NOT like about ETT?”, the most common answers provided were “no”, “nothing” and “not really”, with one student writing that they “like it all”. One student wrote that they disliked “everything” about ETT, while a few others answered that they disliked how much ETT is talked about at the school, complained that people don’t “follow” ETT, and felt it had not made the difference it was meant to have made.

When asked “How is E Tū Tāngata going in your classroom? How is it used?” students tended to focus more attention on answering the latter part of the question and responded with explicit examples of how ETT is used in and out of the classroom rather than summarising how successful they felt this was. Of the 16 students who explicitly answered the first half of the question, 10 (63%) of those said that it was going “good”, “well” or “amazing” in their class, the other 6 (37%) tended to say it was going “okay”. Roughly one-quarter of the total students mentioned their teacher when responding to this item, and

shared ways in which their teacher uses or talks about the initiative, including providing regular reminders to the students to follow the mindsets. Other students explained that it has increased the “respect” students have for one another and the teachers and that people are “kinder”. A small number of students (7%) reflected that ETT was “not really used” or “talked about” in their class, while one participant reported that students only use it in class and never out in the playground.

Responses to being asked, “How do you think ETT has changed or influenced the overall school?”, varied significantly across participants. Overall students gave largely unique answers and there was little consistency in the specificity of responses, however, two broad themes were presented with nearly half (44%) describing ETT as having a positive influence on the school, while another 29% described little to no changes within the school as a result of ETT. The last 27% were unsure of the effect ETT had had or provided responses which did not clearly indicate the direction of ETT’s influence. Of the half who generally described a positive change in the school environment as a result of ETT, these changes were typically attributed to positive changes in the school’s social climate and the way members interact at school. For some, that included students noting that students were being more “kind” and “respectful” and seemed to suggest that students believed how they and others treat both their peers and teachers at school had improved. This can be seen in the quote below which seems to summarise the generally positive reflections provided by students:

*“I think it has made the school a better place because everyone is more aware of people and how they treat others and their selves” (P36)*

*“E Tū Tāngata has changed the amount of kindness to others in our school and more are taking pride in their work.” (P9)*

Some students in the *little to no influence* group explained that people at the school were still being “bullied”, while others felt that their teachers did not follow the ETT mindsets

enough, or that ETT is not taken seriously and is only ever “joked about”. One particular student said that ETT had “made a minor impact” on the school but did follow this by saying they had noticed the “vibe” of the school had become more positive.

Responses to the item asking students whether ETT “has changed how [they] feel about [themselves] or view other people” were more consistent across the 66 participants. Interestingly it was an almost even split between students reporting that they felt ETT had changed them in a positive way, and those who felt ETT had not influenced them at all. Responses of the students who recorded that ETT had influenced them, implied that the initiative had improved the way they view and treat others (recognising that *Others Matter*) or increased how empathetic they are to others’ thoughts and feelings. For example, one student wrote:

*“It changed me to think before I speak/act and take other people’s feelings into consideration” (P44)*

In addition, students reported that ETT had improved how they viewed themselves, with 7% recognising that they now believe in the *You Have Value* mindset and see themselves as valuable. Interestingly, five of the students who reported that they had not been influenced by ETT mentioned that this was because they were “already nice” and doing the things ETT promotes.

In response to the final item that asked, “Have you talked about E Tū Tāngata with people who are not from your school? Please describe what happened”, 75% of students answered (in most cases in just a single word) that they had not spoken about ETT outside of school. For the 10 who described a situation in which they discussed ETT with someone not from their school, most reported that they had spoken to their parents about ETT and shared that they thought their parents thought it was a good idea.

### 3.5.2 Identified Themes

Across the seven qualitative items, there was substantial overlap in students' responses. This overlap led to the identification of 14 sub-themes which summarise the key patterns presented within the data. These sub-themes and the codes used to identify them can be seen in Table 3.9 below and demonstrate how these consecutively led to the generation of the overarching macro-themes presented. These overarching themes shall be discussed in more detail below. A demonstrative quote has been provided for each sub-theme to exhibit students' responses and how these align with the themes identified. It must be noted however that these demonstrative quotes are examples only and must not be considered representative of all students' responses within each theme.

As shown in Table 3.9, the clearest overarching macro-theme, *ETT Improves Peer Interactions*, encapsulates students' overarching opinions of the initiative's effect at the participating school. Evidence towards this theme was mostly gathered from the items asking students to reflect upon ETT, its implementation and the impact it has had personally and on the overall school. This *ETT Improves Peer Interactions* macro-theme summarises students' reflections that ETT seems to be positively influencing how students interact with one another at school. Throughout the qualitative results, students repeatedly reported that since the implementation of ETT, students' relationships with one another have improved, they treat others better by showing more kindness and respect, they are more considerate and inclusive of others, and feel as though the school is a more positive and safer environment (see Table 3.9 for all sub-themes).

**Table 3.9**

*Identified Overarching Themes and their Contributing Sub-Themes presented across Qualitative Items*

<b>Overarching Themes</b>	<b>Sub-Themes Presented across Items</b>	<b>Codes Identified within Responses</b>	<b>Demonstrative Quote</b>
ETT Improves Peer Interactions	Improved how I/we treat others	<ul style="list-style-type: none"> <li>• Respect*</li> <li>• Kind*</li> <li>• Less bullying</li> <li>• Treat others</li> </ul>	“Respectful to one another, treat each other nicely” (P2)
	Students are more respectful	<ul style="list-style-type: none"> <li>• Respect*</li> </ul>	“E Tū Tāngata is where you teach others to have respect for themselves and other people” (P58)
	Students are kinder	<ul style="list-style-type: none"> <li>• Kind*</li> <li>• Nice*</li> </ul>	“It shows how to be kind and nice” (P38)
	Promotes positive behaviour at school	<ul style="list-style-type: none"> <li>• Describes positive behaviour</li> <li>• Work together</li> <li>• Behave</li> </ul>	“I think my class is definitely displaying E Tū Tāngata, such as saying good morning to the teacher makes her feel more noticed and acknowledged, being kind to our peers and including anyone that would like to be” (P13)
	Improves how positive and safe the school feels	<ul style="list-style-type: none"> <li>• Safe*</li> <li>• Positive</li> <li>• Better</li> </ul>	“I feel safer and feel like people respect me” (P30)
	More considerate of others	<ul style="list-style-type: none"> <li>• Think about others</li> <li>• View others</li> <li>• Others’</li> </ul>	“It changed me to think before I speak/act and take other people’s feelings into consideration” (P44)
	More inclusive of others	<ul style="list-style-type: none"> <li>• Brings people together</li> <li>• Unites people</li> <li>• Include others</li> <li>• People different to me</li> <li>• Don’t leave people out</li> </ul>	“It’s going good because people have started taking the others matter part seriously and try to include people they don’t normally want to include” (P11)
ETT is Used Inconsistently	ETT is not talked about in my class	<ul style="list-style-type: none"> <li>• Not really</li> <li>• Not talked</li> <li>• Not used</li> </ul>	“It’s not really used at all in my class” (P59)
	Some teachers don’t use ETT	<ul style="list-style-type: none"> <li>• Don’t use</li> <li>• Teachers don’t</li> </ul>	“Some teachers dont use it with the students” (P10)

	Some students don't use ETT	<ul style="list-style-type: none"> <li>• Don't use</li> <li>• Students don't</li> <li>• Only in class</li> </ul>	"The little kids use it a lot. The seniors kind of ignore it a little bit" (P8)
ETT is Confused with other Constructs	The ETT mindsets are our school values	<ul style="list-style-type: none"> <li>• School values</li> <li>• Place values</li> </ul>	"They are the schools values" (P37)
	The ETT mindsets are school rules	<ul style="list-style-type: none"> <li>• Rules</li> </ul>	"Just gives us basic rules that we have to follow" (P10)
	The ETT mindsets are personal values	<ul style="list-style-type: none"> <li>• Values</li> <li>• Morals</li> <li>• Beliefs</li> </ul>	"It's the values you and others have" (P18)
	ETT is an anti-bullying programme	<ul style="list-style-type: none"> <li>• Stop bullying</li> <li>• Anti-bullying</li> <li>• Bully*</li> </ul>	"E Tū Tāngata is an organisation to help schools stop bullying" (P36)
<i>Note: Quotes are only used to demonstrate alignment with the theme and are not representative of all participant responses</i>			

Of all the terms used within answers, the term *respect* was used most frequently. Variations of the term (respect/respected/ respectful) were used in 11.6% of the total responses given across the seven qualitative items. As mentioned above, *respect* is one of the participating schools' values, so the frequent use of this term indicates that students seem to be registering alignment between ETT and the values the school promotes. Variations of the term kind (kind/kinder/kindness) were also frequently used within answers and reinforces the conclusion that students seem to believe ETT has improved how kind members of the school community are to one another. While many students provided positive reflections on ETT, it is important to keep in mind that this sentiment was not unanimous and almost 30% of students indicated that things had not changed at the participating school as a result of ETT. Unfortunately, the current study does not have the sample size or sufficient quantities of data to explore these individual differences more thoroughly.

The following couple of quotes demonstrate this perceived positive change in the social environment, and students' newfound tendency to be more considerate, inclusive, and collaborative at school:

*"I think it has made the school a better place because everyone is more aware of people and how they treat others and their selves" (P36)*

*"I think that it has definitely made our school a kinder and more enjoyable place" (P51)*

*"I treat everyone the same because we are all different and we all have value" (P48)*

*"I think other people's feelings and ideas are important even if they are different than mine" (P45)*

*"I don't leave people out and if they are sad, I will go and cheer them up and see if they want to play with me" (P25)*



While not as clear as the *ETT Improves Peer Interactions* macro-theme, the most common macro-theme presenting as a challenge to ETT at the target school surrounded inconsistencies students noted in the way ETT was used at school (see Table 3.9). In response to several different items, 17% of students described that *ETT is Inconsistently Used* by students and staff, with some students linking this inconsistent use to the reduced effect they perceived ETT to have had. A few students explained that some teachers do not use or even talk about ETT, while other students mentioned that their peers only seem to use it when in class. The following quotes demonstrate the inconsistencies some students noted within their reflections:

*“Some teachers dont use it with the students” (P10)*

*“The staff talk about it more and the little kids use it a lot. The seniors kind of ignore it a little bit” (P8)*

*“Our teacher tell us about it and reminds us to use it, but it is only used by some people. Others don’t, only in front of teachers.” (P31)*

*“It’s not really used at all in my class” and “I feel like our school doesn’t really portray it as much as they say they do” (59)*

Other sub-themes presented within students’ answers (see Table 3.9) implied that there is confusion around differentiating between ETT and other aspects of school life. For example, a few students seemed to confuse or misinterpret ETT and its mindsets as the school values (9%), personal values/morals (9%), or even in some cases school/classroom rules (3%). This wasn’t a common theme; yet was interesting to note as it suggests a need for clarity in implementation. Interestingly, a notable number (9%) of students named or described ETT as an anti-bullying programme, or an initiative which aims to reduce the frequency of bullying at school. Although there were a couple of responses that

contradicted this by reporting that they had experienced or seen others being bullied (3%) and thus felt ETT was not effective.

Overall, the qualitative results seem to present that the majority of students reflect that ETT is a positive initiative, which roughly half believe has had a positive influence on themselves and their school. In particular, it seems clear that most students believe ETT has improved the relationships students have with their peers and how they interact with one another at school. Additionally, some students reflect that they have improved how they view themselves, how safe they feel at school and how positive the school climate appears to be. While some students have critiques of ETT's implementation at the school, the majority of students appear to reflect upon the initiative in a positive light. Further interpretation of these results and their implications on this study and the wider ETT evaluation project shall be discussed and critiqued in the following chapter.

## Chapter Four – Discussion

The following chapter begins by providing an in-depth and critical response to the study's three research aims, incorporating the quantitative and qualitative data with findings from the literature review provided. Following this, the overarching research aim is addressed in relation to ETT's theory of change, before the practical implications, strengths, limitations, and suggestions for future ETT research are discussed.

### 4.1 Research Aim One: The ETT Student Survey

The first research aim evaluated the psychometric properties of the ETT student survey, including the reliability and convergent validity of the newly developed quantitative scales. Overall, the results showed that some aspects of the Student Survey seemed to reliably hold together as subscales according to the original intentions, but in other aspects, the survey showed considerable limitations, which need to be carefully considered and possibly redeveloped.

Psychometric testing and scale validation takes a long time and requires rigorous testing before it can be finalised and trusted as an adequate measure of the target variables. Normally the psychometric development process begins with the collection of a large sample of items from existing measures and tests these upon a large, diverse sample of participants before reducing the number of items to a more manageable set of items. However, due to the scarcity of pre-existing research on our variables and the lack of validated measures available, we had to rely heavily upon custom items, substituted by a variety of items taken from previous scales. On top of this, time constraints and our need to keep the scale relatively short and accessible for pre-adolescent children meant we could not follow the typical scale development approach. Instead, the scale development process

included a collation of existing school climate measures which were reviewed with key stakeholders. A small sample of existing items were retained, and many more custom items were added, and then reviewed again by the same stakeholders after being placed in a draft survey. The draft items were further edited after pilot testing with students and teachers, and then finally included in the survey for the children at the participating school. Given this, any additional items added to this survey must be considered extremely carefully and may require additional testing before the final scale can be distributed more widely.

#### 4.1.1 Quantitative Aspects

A detailed analysis of the possible factors within the Student Survey suggested a slightly different subscale structure than what was originally intended, with five survey items being rejected due to substantial cross-loading, and eight distinct subscales measuring the ETT mindsets as school climate predictors and outcomes from the ETT theory of change. The reliability statistics were mostly acceptable, with five out of eight subscales showing an internal consistency reliability greater than .70. However, given that four subscales only had two or three items, this makes it difficult to achieve good internal consistency. Although the validity of the subscales was not comprehensively tested, four of the six correlations between the independent variables were positive and significant. This suggests rather modest levels of convergent validity across the subscales. On the one hand, correlations among the predictor variables should not be strong as we strive to measure unique constructs, and it is important to avoid multicollinearity in predicting the outcomes; nevertheless, a greater level of correlation between the independent variables was expected as the ETT mindsets conceptually have a relatively large degree of overlap between them. Similarly, three of the six correlations between dependent variables were significant, with that between *School Belonging* and *Achievement Pressure* being negative.

Again, these associations suggest some evidence towards convergent and discriminant validity across subscales. The moderately strong and positive correlation between *Subjective Evaluation* and *School Belonging* is logically plausible. It also makes sense that the correlations between *Subjective Evaluation* and both *Achievement Pressure* and *Insecure Responses to Failure* were negative and weaker than those with *School Belonging*. *Achievement Pressure* and *Insecure Responses to Failure* were also significantly and positively correlated which is understandable given their close relation to the concept of growth mindsets (Dweck, 2006) discussed earlier. Currently, there is limited and inconsistent evidence of validity across the subscales, thus, further testing is recommended.

The greatest concern among the predictors is with the items that were designed to assess the third ETT mindset of *Others Matter*. Originally there were five items designed to measure this predictor, however, after the PCA one item merged with the *We Succeed Together* items to make up the *Students Succeed Together* subscale, three were included in the *Social Inclusion* subscale, and one was removed due to cross-loading. Taken together, the four items making up the *Social Inclusion* subscale assess the degree to which the school staff are socially inclusive of students, and students' perceptions of socially outcast or favoured students who receive most of the staff attention, rather than how students align with the *Others Matter* mindset. In light of this, further investigation is warranted into how the school promotes students' understanding of *Others Matter* and consequently how students show enact that mindset.

For the outcome variables, the efficacy of the *Achievement Pressure* and *Insecure Responses to Failure* subscales is also questionable. In the original measure, the items making up this subscale were expected to align as a single construct, assessing students'

responses to failure as an indicator of growth vs fixed mindsets. However, this was not the case. The items within our measure were found to measure two distinct constructs, with more items retained for *Achievement Pressure* than *Insecure Response to Failure*.

Additionally, the incorporation of almost all the Positive Risk-taking items into the *School Belonging and Acceptance* subscale raises a key concern around its measurement. The inadequacy of these items in measuring *Positive Risk-taking* may be largely related to the lack of literature available on the construct, and thus, our need to use custom items for measurement. If this outcome is going to remain within the ETT ToC and be a variable which future research aims to explore, significant work is going to be needed to redevelop these items and form a subscale distinct from *School Belonging*.

In light of all this, the current survey will need additional revisions and the following should also be taken into consideration. First, the PCA results suggest students were sensitive to whether items were focusing on the classroom or the whole school setting. For example, the *You Have Value* items were split into the two *Valued-* subscales, with those “in my class” items combining to form the *Valued-Respected* subscale, and those focusing on the experiences “at this school” making up the *Valued-Supported* subscale. In addition, students also seemed to be sensitive to whether items were focused on student-student interactions or those between students and staff. This is most evident when comparing the *Students Succeed Together* items, which all addressed the students and their classmates, with those of the *Social Inclusion* subscale, which rather drew attention to the adults in the school and how they interact with students. The nature of how these items were organised based on students’ responses indicates that students seem to be sensitive to the item target and poses questions about where attention should be focused when measuring school climate and whether individual, class or school-wide experiences are most important.

Despite having a low-reliability score, *Social Inclusion* was surprisingly significantly correlated with several of the other study variables. Usually, lower reliability leads to reduced strength of association, however, this did not appear to be the case with this subscale. In fact, *Social Inclusion* was a significant predictor of *School Belonging and Acceptance* and was found to also play an important role in the indirect pathway to increased *Subjective Evaluations of ETT*, through *Students Succeed Together*. Given the inadequate reliability statistics for this scale, it is suggested these items are revisited and additional items developed. The *Insecure Responses to Failure* subscale also has dubious psychometric properties and had a similarly low-reliability score and was only associated with two other variables. The results of this outcome should be treated with caution.

#### 4.1.2 Qualitative Aspects

Overall, the qualitative items within the student survey provided valuable insight into students' reflections which would be unattainable from the quantitative data alone. From the nine qualitative items, greater detail was obtained from the student's reflections on ETT and the perceived effectiveness of its implementation at school. Specific examples of what students feel is going well or may need improvement at the participating school allow detailed feedback to be given to both the school and ETT, which can be used to better the initiative and its implementation.

In the qualitative results section, I noted that several items acquired more detailed responses from students than other items. On reflection, I have attributed this mostly to the wording of items, with items utilising open-questions obtaining longer, more detailed responses than those using closed-questions. Because it is known that open questions are more successful in extracting greater detail and more accurate responses than closed

questions (Brown & Lamb, 2015), it is no real surprise that some specific items were more successful in eliciting more detail from students than others. For example, when comparing the items “What do you like about ETT?” and “Is there anything you do NOT like about ETT?”, there was a stark contrast in the length of responses, with the first typically obtaining one or two short sentences, while the latter frequently returned only one- or two-word answers. These variations in response length and detail based on question style remained relatively consistent across the nine items, however, the complexity of items may have also played a role. For example, when questions included several sub-questions or asked a question before directing the students to explain their answers, shorter responses tended to be received. While some detailed responses were provided in light of closed or multi-part questions, the greater number of restricted responses to these items suggests that the specific wording of these items may need to be revisited.

It also might be beneficial to question the purpose and value of the final qualitative item, asking students to reflect upon whether they had “talked about ETT with people who are not from [their] school?”. This item was included in hopes of investigating the degree to which ETT is expanding beyond the school environment; however, the results showed that this does not seem to be the case. Instead, students seem to be generally keeping ETT as something discussed and used in class, or heard about in assemblies, but not outside of that environment. In this case, knowing that the message of ETT is not extending beyond the school walls via the students may be potentially useful to know, but the value of this item is questionable and could be replaced with other items that retain the focus on ETT’s impact on students at school.



In its current form, the Student Survey provided relatively sufficient data for this pilot test and has provided valuable insight into the integrity and reliability of the psychometric that was designed for this study. As a newly developed measure, the current results suggest that there is an initial foundation for a valuable measure; however, there are many aspects of the quantitative and qualitative components which need revisiting and further testing before future more widespread distribution of the measure across multiple schools.

#### 4.2 Research Aim Two: Associations between ETT mindsets and Students' Outcomes

The second research aim examined how the school's integration of the ETT mindsets (You Have Value, We Succeed Together, and Others Matter) was associated with students' sense of belonging to the school, positive risk-taking behaviours, and response to failure. While two of the three hypothesised outcomes (*Positive Risk-taking* and *Responses to Failure*) had to be reconceptualised in slightly different ways after the PCA analyses, several associations were identified between the ETT mindsets and the outcomes.

##### 4.2.1 ETT and School Belonging

Results suggest that all four of the predictor variables, as approximate measures of the ETT mindsets, were positively and significantly associated with student perceptions of *School Belonging and Acceptance*. As such, students' recognition of the mindsets being enacted at school, through feeling *respected* and *supported*, seeing students collaborate and work as a team (*Students Succeed Together*), and seeing students and staff model socially inclusive behaviours (*Social Inclusion*) positively predicted the sense of belonging students reported and how accepted they felt by the school community. These quantitative results are supported by students' qualitative responses which repeatedly suggested that ETT had improved the way students interact with one another.

As mentioned in section 1.4.1, Goodenow and Grady define school belonging as feeling “supported” and “respected”, which I critiqued as the process that one experiences when one develops a sense of belonging. In this study, the measurement of school belonging was positioned as the sense of connection a student has to the entire school and how well they feel they belong in that environment and with that community. The results partially support this as Valued-Respected and Valued-Supported were significantly correlated, with Valued-Respected being the strongest predictor along with Students Succeed Together.

Further to this, several researchers (Allen et al., 2018; Cemalcilar, 2010; Gowing, 2019) agree that the quality of relationships students have at school, predicts students’ sense of school belonging. The quality of connections students have and the nature of these proximal interactions combine to influence how satisfied a young person is with the social aspects of their school and thus, their sense of belonging (Cemalcilar, 2010; Gowing, 2019). While we did not additionally measure the students’ satisfaction with the structural aspects of the school as suggested by Cemalcilar (2010), the satisfaction students have with the social aspects alone is recognised as a strong predictor of school belonging and thus has been used independently. Furthermore, many aspects of the results suggest that students’ relationships with others and interactions with school members have improved under the influence of ETT. This is most clearly seen in the qualitative results which highlighted that most students felt ETT had improved peer interactions at school, and that students were more respectful, kind, and considerate of one another. Supporting this, students’ reports of student collaboration and teamwork (*Students Succeed Together*), as well as perceptions of *Social Inclusion*, likely enhanced how students perceive the social environment of the

school, and thus explains the significant associations between these four variables and this outcome.

#### 4.2.2 ETT and Positive Risk-Taking

As already mentioned, the items designed to measure *Positive Risk-taking* were incorporated into the *School Belonging and Acceptance* subscale during psychometric analysis. The consequence of this was that our Student Survey had no direct way of measuring this proposed outcome. While the small amount of existing literature suggests that inclusive behaviours may signify positive risk-taking (May et al., 2021), our scale's equally inadequate measurement of students' socially inclusive behaviours reinforces that we do not currently have a suitable approach to measuring this outcome and thus cannot currently imply any association between the ETT mindsets and *Positive Risk-taking*.

#### 4.2.3 ETT and Student Approaches to Learning

The quantitative results also indicate that student reports of feeling *Valued-Respected* at school was a significant predictor of how students feel about achievement pressures, their responses mistakes or failure at school. Combined, the correlations and results of the multiple regression analyses indicate that when students feel *respected*, they are more likely to report less external pressure to do well (*Achievement Pressure*) and report fewer *Insecure Responses to Failure*. In line with the assumptions outlined in section 1.4.3, students who attend schools which favour and promote students' inherent value, despite their academic abilities, are more likely to approach academic setbacks in a more advantageous and open-minded way. With this, students will be less likely to hold a fixed mindset or believe mistakes and failures reflect them as an individual. Given this, while the items and subscales were not robust, there is a potential indication here that by promoting

students' value at school, you may shift how they perceive their mistakes and failures, leading them to feel less external pressure to achieve highly.

#### 4.3 Research Aim Three: Reflections on ETT and the Perceived Changes

The third and final research aim examined how older primary school students (yrs. 6-8) reflected upon ETT and the changes they have experienced personally and seen within their classroom and school. Across the sample, the majority of students seemed to have a reasonable understanding of what ETT is and referred to at least one of the ETT mindsets within their responses. While many students attributed ETT to positive changes in the social environment and how students communicated with and treated each other, reasonably common misconceptions about ETT were recognised throughout the sample. The fact that a small but noteworthy portion of students confused ETT with the school values, school rules, or an anti-bullying programme, indicates that increased time and effort needs to be put in to distinguishing these concepts from ETT and highlighting what the purpose of ETT is within the participating school. Given the fundamental role teachers hold in facilitating ETT within schools, this responsibility to clarify the purpose and role of ETT is likely to fall onto the teaching staff. However, as key moderators, each teacher's personal understanding and value of ETT is likely to alter how this is then communicated.

Overall students typically reflected upon ETT positively, with quantitative and qualitative data indicating that as a collective, the majority of students generally agreed that ETT was going well and was valuable to them and their school. However, on a personal level, roughly half of the participants reported that ETT had little to no influence on their lives. There were several outliers to this at both ends of the continuum. For example, one student shared that they saw such value in the strategies their teacher had used to teach the *You Have Value* mindset, that they continued these activities at home over the summer and into

the new year and believed it had strongly influenced how they now perceive themselves. On the other side of the spectrum, a few students felt strongly that ETT had not been helpful at the school and felt there were still issues with bullying at the school.

Building on this, students seemed to frequently describe positive changes in the school environment and normative behaviours at school, for example sharing that students were kinder, more respectful, and more collaborative, however when explicitly asked how ETT had changed themselves or the school, only half of the participants explicitly reported any specific changes. This is interesting as it suggests that students were experiencing improvements in how students acted and treated others; yet were not attributing these changes specifically to ETT. This may be related to the students' cognitive abilities, perceptiveness, and ability to distinguish between different types of change. This may point to an important limitation of the survey. There is an underlying assumption that students of this age group had the cognitive and reflective ability to make generalisations across their classroom and the wider school environment; however, this may not have been the case and may explain why students described generic changes but could not be more specific in how this was experienced. This also points to the potential influence of a social desirability response bias.

Interestingly, of the students who gave an alternative perspective to this majority positive response, 17% identified inconsistencies within how ETT is implemented by staff and followed by students. Many of the students felt that some teachers and students failed to follow the ETT mindsets, while others described it as being misused, made fun of, or not spoken about at all. These findings provide support for three of the moderators identified within the ETT ToC (Figure 3.2) and reinforce that ETT's effectiveness may be largely

influenced by the level of student and staff engagement. As teachers are the primary facilitators of ETT within classrooms, especially in primary school settings, and thus, control the level of exposure students have to ETT, it was expected that teachers who see greater value in the initiative will talk about and expose their students to ETT more than those who do not. However, questions then arise around how this can be mitigated and whose responsibility this may be. As ETT relies upon individual schools and teaching staff to facilitate the school's engagement, it may be beneficial for school leadership teams and also ETT to consider what role and responsibility each party holds in supporting teaching staff and student engagement. Our lack of resources to adequately measure these moderating factors is a limitation of this study which shall be discussed further below.

One of the most interesting findings was the analyses related to students' subjective evaluation of the impact of ETT at the school. The mediation analyses showed that, students' reports of their peers collaborating and *Succeed Together* mediated the relationship between *Social Inclusion* and their *Subjective Evaluations of ETT*. The results suggest that students recognise the role teachers play in facilitating and promoting ETT by creating a socially inclusive environment; however, this facilitation and promotion is not sufficient in and of itself for students to positively judge ETT. Rather, social inclusion needs to be translated into more collaborative peer relationships (*Students Succeed Together*), which then shapes their subjective evaluation of ETT's impact at the school. This was also reflected within a couple of qualitative responses, which described that ETT required reciprocity and when students felt their peers or teachers were not following ETT, then they also did not feel the need to do so, which reduced the level of influence they perceived ETT had. Ultimately, these findings suggest that students' judgements of ETT were largely based

upon whether they observed the ETT mindsets being expressed within the school community.

#### 4.4 Current Results and E Tū Tāngata's Theory of Change

The results provided in response to the three research aims largely support the hypothesised pathways identified within the ToC (addressed in section 1.3.4). This support is provided as students reflect that by engaging with ETT and its strategies, they have experienced an “increased sense of acceptance”, “increased awareness... of others”, “increased positive communication” to and about themselves and others, and “increased positive peer interactions”. The qualitative results support a general presence of these targets within the school environment, while the quantitative results begin to recognise the existence of the predicted student outcomes within the sample. While this is only preliminary, exploratory data, the findings of this study suggest a foundational level of support for the ETT ToC and its outcomes. In particular, students’ “increased positive peer interactions” and “school belonging and acceptance” appear to be the most evidenced outcomes of ETT at this point. Less definitive support for the other targets and outcomes addressed within this study imply that ETT may also positively influence the other targets and outcomes as hypothesised.

For this thesis project, I have conceptually positioned the ETT initiative within the field of school climate research. While ETT does not explicitly aim to be a school climate change initiative, there is substantial evidence from the existing literature, ETT’s ToC, and the results of this study supporting an argument that ETT does address the individual student, peer nano-system and classroom nano-system, with most direct effects being on the peer nano-system and *relationships* domain of school climate. Results showed that individual

students felt more respected and supported at school, and 7% explicitly stated that they saw themselves as more valuable than before ETT was introduced. The peer nano-system seemed to have been influenced, with results suggesting that students' relationships with others had improved and become more collaborative, with students reporting that their peers were kinder, more respectful, and mindful of others than before. These results support previous findings outlining that by improving the quality of interactions students have with others, decreasing the frequency of anti-social behaviours, and increasing the level of cohesion within a school, a school's climate, especially the *relationships* domain, will be improved (Charlton et al., 2021; Darling-Hammond & Cook-Harvey, 2018; VanLone et al., 2019; Voight & Nation, 2016). Lastly, small amounts of qualitative evidence suggest that the classroom nano-system was also impacted by ETT's influence, however, given the brevity of students' responses this needs to be explored in future research in more depth. Thus, evidence from both the qualitative and quantitative results support that several aspects of the school ecosystem (Rudasill et al., 2018) have been influenced by ETT, supporting the hypothesis that ETT has the potential to influence a school's social climate.

Currently, the ETT ToC does not explicitly claim to address the safety of a school. However, when considering the results of this study, and the literature suggesting that social/emotional safety is a key aspect of the *safety* domain of school climate, I propose that this outcome should be considered within future iterations of the ToC. While there is no evidence to support that ETT may improve the physical safety of a school, I argue that by improving the *relationships* domain of school climate and the quality of interactions students have, the *social and emotional safety* of a school's environment will consequently improve. For example, by promoting "positive communication" and "acceptance" of others, students will likely feel increasingly comfortable and accepted by those around them,



allowing them to feel a greater sense of security and safety to be themselves. Interestingly, this was noted by a small number of students, who responded to qualitative items by saying that ETT had indeed helped them to feel safer at school. More investigation is required into this in future research, but I think it may be beneficial to consider the role ETT may have in improving not only the *relationships* domain of school climate but also the domain of *safety*.

## 4.5 Practical Implications

### 4.5.1 Implications for ETT

The implications of this Student Pilot Test for ETT are relatively clear and centre around the nature of this research as a pilot test and preliminary trial of the research methods intended for future ETT evaluations. First and foremost, the findings of this thesis project provide ETT and the wider research team with clear direction as to areas of improvement for the survey before the evaluation can be conducted with a larger, more representative sample, or as an open-access measurement tool on ETT's website. Specific suggestions for how this survey should be improved are discussed in section 4.1 above but mostly address the items used within the survey. While not perfect, the current version of the survey provides the foundations of a measure, with several satisfactory subscales, which can be built on to better measure students' experiences of ETT at school. Additionally, the theoretical findings presented in the literature review and the results of the survey provide valuable foundational support for targets and outcomes presented within the ToC. Currently, the results suggest that ETT is having the greatest effect on students' relationships with others, their sense of school belonging, and in improving aspects of the school's climate.

The results of this Student Pilot Test emphasise how important it is to evaluate community-based, grass roots initiatives such as ETT and why evaluations of ETT's ToC are necessary following its inductive production based upon an observed need in the community rather than academic literature and theory. This thesis project was the first test of ETT's ToC and their hypothesised targets and outcomes. The results of this preliminary examination provide reasonable support for these hypotheses; however, not all outcomes in this study were effectively measured or found as distinct from one another as initially proposed. This indicates that additional research should be conducted focused on the other targets and outcomes, as well as specifically investigate the other strategies and moderators that this study did not address.

While ETT and its principals were developed in consultation with Māori, and the key principals of the initiative, including its three mindsets, appear to relate strongly to several kaupapa Māori, ETT is not a Māori initiative nor targetted specifically to meet the needs of Māori. Due to this, we did not collect data on ethnicity within our study, and therefore cannot comment on the specific perceptions and outcomes of ETT based upon this. This indicates a need for future evaluations of ETT to explore how the initiative is received by different cultural groups within schools. Further to this, as mentioned previously, there is very little research on school climate and how students' perceptions of a school vary in bi- or multi-cultural spaces. Within Aotearoa even less research has been conducted into Māori perspectives of school climate and further research is needed. As an initiative with the potential to change school climate, ETT is encouraged to take this opportunity to examine how their initiative is experienced by Māori and Pasifika students and investigate the cultural suitability of their strategies.

#### 4.5.2 Implications for the Participating School

Similarly, the results from this study have several implications for the participating school, in particular the school's leadership team and teaching staff (a detailed report will be provided to the principal who was a key stakeholder in this project). First, the results seem to show that the school community is doing a good job at providing an environment within which the older students at the school feel they belong, are valued, respected, supported and accepted by others. These results were relatively consistent across both quantitative and qualitative results, and students frequently attributed this positive school climate to the influence of ETT. This is valuable for the school as it provides some tangible evidence for the possible effect of all their efforts to embed ETT across the school.

Additionally, the qualitative results showed that students have a general understanding of what ETT is, and can recall the mindsets; however, ongoing clarification and guidance as to its purpose within the school and how it should be distinguished from other aspects of the school environment (e.g., school values or behaviour management strategies) would be helpful. For young students still in primary school, some confusion about these rather abstract concepts may be expected and tolerated; nevertheless, the results do point to a need for considerable care in how things are communicated.

Another challenge for the school identified from the results is the inconsistent engagement with and application of ETT by some of the teachers. Allen et al. (2018) highlight that teacher engagement is equally important as student engagement when trying to improve school climate, and the influential role school staff play has been identified within ETT's ToC. Given this, teachers need to be made aware of the significant role they play in facilitating ETT (communicating about the mindsets, implementing strategies to

promote the mindsets), but also in modelling the mindsets themselves. The results suggest that students are sensitive to how staff talk about and model ETT. Given this, the school leadership team may need to continually consider how school policies and the quality of staff working relationships are in line with the ETT mindsets so that it can be a lived experience across the school community.

#### 4.6 Study Strengths

While this study was largely exploratory and a pilot study testing the methods and measures for a wider research project, this study has several strengths which should be highlighted. First of all, the sample, while small, was largely representative of the target population and therefore presumably the school population as a whole. Within the sample, there was an almost equal number of male and female participants, with one student identifying as gender diverse, and an almost even distribution of students across year levels. While it would have been beneficial to also collect information on participants' ethnicity, we did not have this available, and it should be considered in future studies.

Within the sample, the majority of participants had been enrolled at the school for more than two years. This means that the majority of students within this sample had some exposure to the school environment before ETT's introduction, allowing them the opportunity to compare their personal and school characteristics now to how it was before ETT was introduced. While this is beneficial, as it means that students have the experiences to reflect upon the changes ETT has made, it is questionable whether students of this age have the cognitive ability and meta-awareness to reflect upon the initiative's influence personally and within the school system over time.

A few methodological strengths are also present. First, this study's use of a mixed-method design. By combining these two data collection methods, I was able to gather a suitable amount of qualitative data which added significant depth and explicit examples to the quantitative data, while maintaining a relatively concise measure which did not take excessive time for students to complete. Another strength is the collaborative nature of this project and the fact that the school and ETT stakeholders have been consulted and involved throughout all stages. While ETT is not a kaupapa Māori initiative, we strived for building a partnership with the other stakeholders, based on ngākau whakaute (mutual respect) and manaakitanga (support/generosity), and believe this was achieved throughout the process.

The last noteworthy strength surrounds the purpose of our study and our effort to test the hypotheses presented within ETT's ToC. Many community-based organisations develop ToCs or logic models, however, rarely put in the resources, time, and effort to effectively test these and the hypotheses made. While there are limitations to the current ToC, the fact that we have based this study's design on the ToC and are testing its hypotheses is a significant strength for both this project and ETT itself.

#### 4.7 Limitations and Future Research Suggestions

As with any piece of research, this Student Pilot Test has several limitations which need to be mentioned and also establishes some need for caution in how these results are interpreted. Several methodological limitations are evident. First of all, the current study design presents several challenges. The retrospective nature of the study design assumes that children of this age group (9-13 years) have the cognitive ability and external awareness to accurately reflect upon the ETT initiative and report on changes at a personal, classroom, and school level. Following this, the largely exploratory nature of this study allowed us to

begin to test the psychometric measure and the hypotheses presented in ToC; however, all the current results need to be considered as preliminary and require replication. A longitudinal design that collected baseline data of the school climate before the initiative was ever implemented would have been a much more rigorous test of the ETT theory of change, and provided much better internal validity; however, this study was a necessary first step toward that larger goal.

The small sample size and recruiting participants from a single primary school are also limitations. While the sample size was sufficient for the qualitative components, the small sample limited our ability to sufficiently test the psychometric properties of scales. Recruitment from a single school rather obviously also constrains the present findings to that school environment. Other methodological limitations relate to the variety of issues that were identified with the Student Survey measure above. These include the item development process, the low reliability and validity of some subscales, subscales with limited items, and the fact that several crucial psychometric tests could not be conducted due to the sample size and distribution of the data set. In this regard, the use of a three-point Likert scale for anchoring students' responses to the quantitative items may have also been a limitation. A three-point scale was chosen to make the process of responding as simple as possible for students, as previous research has shown that young children have difficulty differentiating between too many response options and 3-point scales were better for those under the age of 18 (Coombes et al., 2021). However, this did result in a restricted range of students' responses, and there was no ability to distinguish between those who strongly aligned with items compared to those who only slightly agreed. Given this, future tests of this survey should trial a four- or five-point Likert scale. Together these limitations

indicate that a more robust study design is required after further survey revision has been completed.

Many of these limitations arise from the time and resource constraints related to this project being conducted as thesis research and a pilot test. These constraints meant that I only had the scope and time to investigate a small selection of the ETT targets and outcomes, and the wide array of pathways between these and the ToC strategies was not considered. Due to this, future research is required to test the other hypotheses within the ToC, as well as the associations between the other strategies and the outcomes measured within this study. Further to this, a deeper examination of the effect of the moderating variables is recommended. While the results of this study identified an influence of these moderators, the strength, and implications of these were not examined and should receive greater attention in future research.

#### 4.8 Conclusion

This retrospective and exploratory mixed methods study has been conducted as a collaborative investigation and pilot test of the student component of the ETT evaluation. A small sample of students responded to items exploring the three ETT mindsets (*You Have Value*, *We Succeed Together*, and *Others Matter*), their subjective evaluations of the initiative, and their reports of school belonging and adaptive approaches to learning. The deliberately designed psychometric was comprehensively analysed and a number of recommendations have been made as to how this may be improved for future research and use as an evaluation tool for ETT. In support of the ETT initiative, students generally reported substantial agreement with feeling valued at the target school by being respected and supported. Students also generally felt their peer relationships were collaborative and

that the school provided a socially inclusive environment. Of these four factors increased judgments of being *Valued-Respected* in their classroom and the collaborative nature of peer relationships were the strongest and most reliable predictors of the tested outcomes. The results from the qualitative analyses showed that students felt ETT had helped improve peer relationships, with many students feeling students were kinder and more respectful to others. Although there were individual differences across the qualitative and quantitative results, students overall seemed to reflect positively upon ETT and its effect on the participating school. These results remain consistent with the hypotheses of the ETT theory of change and provide valuable feedback to the key stakeholders for future evaluations of the initiative within schools.



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## Appendix A: Ethical Approval



### HUMAN RESEARCH ETHICS COMMITTEE

Secretary, Rebecca Robinson  
Telephone: +64 03 369 4588, Extn 94588  
Email: [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz)

Ref: HREC 2022/76

5 August 2022

Myron Friesen  
School of Educational Studies and Leadership  
UNIVERSITY OF CANTERBURY

Dear Myron

The Human Research Ethics Committee advises that your research proposal “E Tū Tangata @ [REDACTED]: Implementation Review and Case Study Evaluation” has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 31<sup>st</sup> July 2022.

Best wishes for your project.

Yours sincerely

A handwritten signature in black ink, appearing to be 'DS' followed by a stylized flourish.

Dr Dean Sutherland  
*Chair*  
*University of Canterbury Human Research Ethics Committee*

## Appendix B: Parent/Caregiver Recruitment Email (sent by the School Principal)

Kia ora,

As you are hopefully aware, for the last couple of years our school has been participating in an initiative called E Tū Tāngata. You may have seen posters around the school or heard your children talking about the three E Tū Tāngata mindsets – *you have value, we succeed together, and others matter*. Now that E Tū Tāngata has been well incorporated into the school, we are joining with the E Tū Tāngata leaders and researchers from the University of Canterbury to investigate how this initiative has been received, and how it is shaping our school climate and culture. We would like to invite you and any of your children in Years 6, 7, or 8 to participate in this research.

Participating in this research involves completing a short online survey. There is one survey for parents, one for students, and another one for all the teachers at the school. The surveys were designed by researchers at the University of Canterbury, led by Dr. Myron Friesen from the School of Educational Studies and Leadership in the Faculty of Education. The good thing about an electronic online survey is that everyone's data is kept private and confidential. Only the university research team will have access to your data or your child's data, and they will not be sharing any participant data with our school leadership or with the team from E Tū Tāngata. A full information sheet with all the details about the study is provided on the first page of the survey that you can access via the links below.

Very importantly, participating in this study is voluntary, it's your choice and your child's choice with your permission. No one is under any obligation to participate. Whether you choose to participate or not will in no way affect your relationship with our school, E Tū Tāngata, or the University of Canterbury.

We are hoping that you will complete this electronic survey (which takes approximately 15 to 20 minutes), and we hope you will also give your child permission to complete a similar survey specifically designed for the students (this also takes approximately 15 minutes to complete). As a parent, you have three options for how you and your child can participate:

- As a parent, you can complete the survey AND you can provide your child with access to the student survey.
- As a parent, you can complete the survey, but NOT allow your child to participate.
- As a parent, you can provide your child with access to the student survey, but you do NOT complete the parent survey.

Here are the links to each of the surveys and all the necessary background information about how your data will be securely stored and how the results of this research will be published:

- Parent survey: <https://tinyurl.com/etutangataparentsurvey>
- Student survey: <https://tinyurl.com/etutangatastudentsurvey>

After reading the information sheet, if you have any questions or concerns about this research, please feel free to contact Dr. Myron Friesen by email at [myron.friesen@canterbury.ac.nz](mailto:myron.friesen@canterbury.ac.nz). Thank you for your time and consideration.

Ngā mihi nui.



# Appendix C: Parent/Caregiver Information Sheet and Consent Form



## E Tū Tāngata Parent Survey

### E Tū Tāngata and Our School Parent/Guardian Information Sheet

Kia ora,

My name is Myron Friesen and I am a lecturer and researcher at the University of Canterbury. On behalf of your children's school leadership and the leadership team of E Tū Tāngata, we invite you and any of your children in Years 6, 7, or 8 to participate in a short survey about E Tū Tāngata and its role at this school.

#### **Your voice and your child's voice is important:**

E Tū Tāngata was introduced to this school community just over two years ago as part of a strategic effort to continue developing a positive learning environment for students. Now we are evaluating how E Tū Tāngata has been implemented and the effect it is having on the school community. This evaluation includes surveys of teachers, students in years 6 through 8, and parents of children in years 6 through 8. There will also be an additional opportunity for children in years 6 through 8 who are new to this school to participate in an interview with someone from our research team, but those parents will receive a separate invitation to consider that part of the study. We invite you to complete this electronic survey (which takes approximately 15 to 20 minutes), and we also invite your child to complete a similar survey (with your permission) that is specifically designed for the students (this also takes approximately 15 minutes to complete).

Very importantly, participating in this study is voluntary, it's your choice and your child's choice with your permission. No one is under any obligation to participate. Whether you choose to participate or not will in no way affect your relationship with this school, E Tū Tāngata, or the University of Canterbury. If you or your child choose to participate but then change your mind, you may withdraw from the study by contacting myself (details below), and asking for your information to be removed. This can be done until analysis of the data begins in the fourth term.

#### **Three options for participating in this study:**

If you or your child are interested in participating, there are three ways that you can be included in this study:

1. As a parent, you can complete the following survey AND you can provide your child with access to the student survey.
2. As a parent, you can complete the following survey, but NOT allow your child to participate.
3. As a parent, you can provide your child with access to the student survey, but you do NOT complete the parent survey.

#### **Who will have access to the information that is collected and what will happen with the information?**

Only the researchers at the University of Canterbury will have access to your study data and your child's study data. No personal information will be shared with anyone from the school, or anyone from E Tū Tāngata. Although we ask for your name and your child's name as part of the consent process, this information is stored separately from the study data when it is downloaded. All electronic study data is stored on secure servers and university networks that are only accessible by the research team.

The results from the study are intended to be published which could take several forms. A summary of the results will be provided to the leadership teams of this school and E Tū Tāngata and their funding organisations. Written or verbal reports may be published in academic journals or presented at conferences. However, all data that is published is done so at a group level (e.g., averages, percentages, etc.) and not individually, so that no identifiable information is released. When quotes from participants are used, these are edited to ensure confidentiality and anonymity.

Following publication of the study, the data will be kept for a minimum period of ten years and then destroyed. If you would like a summary of the findings from this research, you can provide your email address at the end of the questionnaire and we will send this to you via email.

**Are there any benefits or risks involved?**

Depending on you and your child's experiences with E Tū Tāngata, reflecting on the effect it has had at school or at a personal level could either be a very satisfying experience (a benefit), or it could bring up some negative emotions (a risk) if things have not gone well. If answering any of the questions in this survey causes any distress, you (and your child if they participate) are free to skip questions or end the survey before completing it. If completing this survey raises any concerns and you wish to receive some support, the contact details of appropriate organizations are provided at the end of the questionnaire.

All of the students who complete their survey will receive a \$10 Warehouse gift voucher to thank them for their participation and to recognise the importance of the information they have provided. We will send you an email when this is available to be collected from the school office.

This study has been reviewed by and received ethical approval from the University of Canterbury Human Ethics Committee. If you have any questions or concerns about this study you may contact myself (Myron Friesen) via the details below. Complaints about this study can be sent directly to the Human Ethics Committee via email: [human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz).

Thank you for your time and consideration.

**Dr Myron Friesen**

School of Educational Studies and Leadership, University of Canterbury

Ph: (03) 369 5598

Email: [myron.friesen@canterbury.ac.nz](mailto:myron.friesen@canterbury.ac.nz)

If you agree to participate in this study, please tick the boxes next to each of the statements below to confirm that you have read and understood the information:

- ☐ I have read and understood the participant information sheet.
- ☐ I understand that to participate in this study I am asked to complete the following questionnaire.
- ☐ I also understand that I may give permission for my child to complete a similar survey about their perspective of E Tū Tāngata.
- ☐ I understand that participation in this study is voluntary and I and my child can withdraw from participating at any time. I understand that if I decide to withdraw my/our participation, all information I have provided so far will be withdrawn, which can be done until the start of the fourth school term.
- ☐ I understand that any information I provide (along with any information my child provides) will be kept confidential to the researchers and any data that is published or any results reported will not identify any participants.
- ☐ I understand that the data collected from this study will be used in written publications or verbal presentations.
- ☐ I understand that all information collected in this study will be stored on secure servers and computer networks of the University of Canterbury that are only accessible by the research team. This information will be destroyed 10 years after publication.
- ☐ I understand that I can contact the researcher, Dr Myron Friesen ([myron.friesen@canterbury.ac.nz](mailto:myron.friesen@canterbury.ac.nz)) for further information or to ask any questions about the study.
- ☐ I understand that if I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch ([human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz)).
- ☐ Please send me a summary of the results from this study via my email address provided below.

To participate in this study and begin the survey, please enter your name in the space provided below and your email address. This will indicate your consent to include your information for this research project with the understanding that your information remains completely confidential. We will only use your email address to send you a summary of the results or to contact you about how to receive your child's \$10 Warehouse gift voucher. Thank you!

Name (first and last)

Please provide your email address or phone number if you do not have an email account.

If you give permission for your child to complete the student survey please provide their first and last names in the space provided. You may include more than one child.

The student survey has its own information sheet and assent form for your child and can be found here: <https://tinyurl.com/etutangatastudentsurvey>

>> Next

## Appendix D: Student Information Sheet and Assent Form



### E Tū Tāngata Student Survey

#### My School and E Tū Tāngata Student Information Sheet

Kia ora,

My name is Myron, and I am a teacher and researcher at the University of Canterbury. I would like to invite you to help me with a research project by answering some questions about how you feel about school and about E Tū Tāngata.

#### How do you like E Tū Tāngata? We invite you to tell us.

You are invited to take a survey about how you feel at school and how you feel about E Tū Tāngata. This survey will ask you some questions about your experiences at school, in your classroom, and with your classmates. We are trying to understand if E Tū Tāngata is helping the school to be a positive place for students and teachers. In this survey there are no right or wrong answers. We are only interested in your opinions.

#### Who can take this survey?

This survey is open to all students at your school in Years 6, 7, and 8. We will also be inviting one of your parents or guardians and your teacher to take a similar survey.

#### Do I have to take this survey?

You do NOT have to take this survey if do not want to. It is your choice if you want to answer these questions or not. You can also decide which questions you want to answer, and which questions you want to skip over. If you choose to do the survey, but then change your mind later, you can tell your parent/guardian and they can contact me and I will remove all your information. This is possible until data analysis begins in the 4th term.

#### Who will see my answers to these questions?

We keep your answers to these questions very private. The only people who will see your answers are myself, and a few other researchers here at the University of Canterbury. Your parents, your teachers, and the people at E Tū Tāngata will not know about your individual answers unless you tell them. When we share the results of this research with people we only share the big group results. If we use a quote from something you write, we make sure the quote has no information that would identify you.

#### Is there a benefit for taking this survey?

You might enjoy answering these questions and giving us your opinion, because it will help the people who are working to make your school a great place to be a student understand what is working and what is not. All the students who finish the survey will receive a \$10 Warehouse gift card, to say 'thank you' for your time and sharing your opinions with us. We will send your parents/guardians an email to inform them that your gift card can be collected from the school office when it is ready.

#### Is there any risk in taking this survey?

If you have had a bad experience at school and you tell us about that in this survey, then that could bring up some negative memories or emotions. If you feel upset by any of the questions you can skip them or just quit the survey. If you feel upset at any time when taking this survey or after, you can tell a parent/guardian or a teacher at school and they will contact us and we will work with them to support you.

**What if I have questions?**

If you have any questions, you can talk to a parent, or one of your teachers at school. You could ask one of them to contact me. My email address and phone number are below:

**Myron Friesen** (University of Canterbury)

Phone: (03) 369 5598

Email: myron.friesen@canterbury.ac.nz

**If you want to take the survey, please complete the form below and then click on the button with the arrows.**

If you want to take this survey, please tick the boxes next to each statement below to confirm that you have read and understood the information:

- ☐ I have read and understood the information about this research study.
- ☐ I understand that to participate in this study I will be asked to complete a survey about school and E Tū Tāngata.
- ☐ I understand that I do not have to take this survey if I do not want to.
- ☐ I understand that any information I provide will be kept private.
- ☐ I understand that if I change my mind later, I can tell a parent/guardian or teacher and they will contact the researcher and all my information will be removed. This is possible until data analysis begins in the 4th term.
- ☐ I understand that if the researcher uses a quote from something I write, that they will remove any information that is personal to me.

To begin the survey, please type your name and the name of your primary teacher in the spaces below, then click on the arrows to begin

My name is (first and last name)

My teacher's name is

>> Next



## Appendix E: Student Recruitment Flyers



### How do you like E Tū Tāngata? We invite you to tell us.

Researchers from the University of Canterbury are working with our school to try and understand how students, parents/guardians, and teachers feel about E Tū Tāngata and how it is affecting our school. You are invited to take part in this research and share your thoughts on E Tū Tāngata.

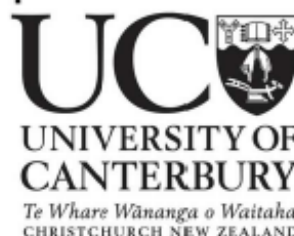
There will be 2 research projects:

1. If you are in Year 6, 7, or 8, you and your parents/guardians are invited to take an online survey and answer some questions about E Tū Tāngata. Your teachers have been invited to do a similar survey. All the students who complete the survey will receive a \$10 Warehouse gift voucher.
2. For Year 6, 7, or 8 students who are new to the school this year, they will also be invited to participate in an interview with a researcher about what it was like to come to this new school with E Tū Tāngata, and how it compares to their old school. All the students who participate in these interviews will be given a \$20 Warehouse gift voucher.

An email has been sent to your parents/guardians about this research. If you want to participate, please talk with them about it. They will be able to give you access to the survey and can contact the researchers for more information.

Your opinions and your perspective are important in this research, and we invite you to share your story about E Tū Tāngata with us .

For more information, please see the emails sent to your parents/guardians from Mr. Moriarty, or your parents/guardians can send an email to the lead researcher at the University of Canterbury – [myron.friesen@canterbury.ac.nz](mailto:myron.friesen@canterbury.ac.nz)





## **ONLY 1 MORE WEEK TO TELL US YOUR E TŪ TĀNGATA STORY**

You have one last chance to participate in the  
E Tū Tāngata research. All surveys close at  
11:59pm on Friday 4 November

**Project 1 Surveys:** If you are in Year 6, 7, or 8, you and your parents/guardians are invited to take an online survey about E Tū Tāngata. All the students who complete the survey will receive a \$10 Warehouse gift voucher. Your parents/guardians need to give permission for you to participate. See this link for more info: <https://tinyurl.com/etutangataparentsurvey>

**Project 2 for New Students:** Year 6, 7, or 8 students who started at Rolleston school this year or late last year, are invited to talk with Connie about what it was like to come to Rolleston Primary School with E Tū Tāngata, and how it compares to your old school. Students who participate in this project receive a \$20 Warehouse gift voucher. For more information, your parents/guardians can contact Connie via her email - [contance.parkes@pg.canterbury.ac.nz](mailto:contance.parkes@pg.canterbury.ac.nz)

Your opinions and perspective are important in this research, and we invite you to share your story about E Tū Tāngata with us.

For more information, or if you have any questions or concerns your parents/guardians can contact the lead researcher, Dr. Myron Friesen via his email - [myron.friesen@canterbury.ac.nz](mailto:myron.friesen@canterbury.ac.nz)



## Appendix F: Student Survey Items and their Sources

Item #	Question	Variable Type	Source
A	My name is (first and last name)	Consent	Custom
B	My teacher's name is	Demographic	Custom
C	What year level are you in?	Demographic	Custom
D	How many years have you attended this school?	Demographic	Custom
E	How old are you?	Demographic	Custom
F	What gender do you identify as?	Demographic	Custom
1	My teacher cares about who I am and how I am doing	Quantitative	<b>(A)</b> B-CSCS; SCASIM-St; DSCS-H; WHITS
2	In my class, I feel respected	Quantitative	WHITS
3	In my class, I feel valued	Quantitative	WHITS
4	If I need help or support, I know there are other people at this school who would be there for me	Quantitative	WHITS
5	There are people at this school who are interested in me	Quantitative	<b>(A)</b> DSCS-H
6	There are people at this school who know what I'm good at, and what I like to do	Quantitative	Custom
7	I think most students in my class work well together.	Quantitative	GruKo4
8	The students in my class are competitive (they like to win) and do not like it when others do better than they do (R)	Quantitative	GruKo4
9	When I do something really well, my classmates are happy for me	Quantitative	Custom
10	The students in my class try to help each other succeed	Quantitative	GruKo4
11	The teachers at this school care about everyone's success	Quantitative	<b>(A)</b> B-CSCS; SCASIM-St
12	At this school, students who are "different" in any way are treated with respect	Quantitative	SCM-R
13	At this school, there is a place for everyone	Quantitative	<b>(A)</b> SCM-R
14	There are a lot of people in this school who do not fit in (R)	Quantitative	Custom
15	The adults at this school try to make sure no one is left out	Quantitative	<b>(A)</b> DSCS-H; B-CSCS; WHITS
16	There are only a few important students at this school, and everyone else is ignored (R)	Quantitative	SCM-R
17	How would you describe E Tū Tāngata to someone who had never heard of it?	Qualitative	Custom



18	What do you like about E Tū Tāngata?	Qualitative	Custom
19	Is there anything you do NOT like about E Tū Tāngata?	Qualitative	Custom
20	E Tū Tāngata, along with our school values, are a good way to help everyone succeed	Quantitative	Custom
21	At our school, E Tū Tāngata has NOT made any difference in how people treat each other (R)	Quantitative	Custom
22	E Tū Tāngata helped everyone feel safe and included at this school	Quantitative	Custom
23	Most of the students do not pay any attention to E Tū Tāngata and those three themes (R)	Quantitative	Custom
24	The staff at this school talk about E Tū Tāngata, but most do not seem to practice it (R)	Quantitative	Custom
25	E Tū Tāngata has been helpful for me.	Quantitative	Custom
26	Because of E Tū Tāngata I am more careful about how I act and speak to other people.	Quantitative	Custom
27	E Tū Tāngata has helped change the way I think about myself	Quantitative	Custom
28	It has been good for me to learn about E Tū Tāngata	Quantitative	Custom
29	How is E Tū Tāngata going in your classroom? How is it used?	Qualitative	Custom
30	How do you think E Tū Tāngata has changed or influenced the overall school?	Qualitative	Custom
31	Has E Tū Tāngata changed how you feel about yourself or view other people? Please describe how it has changed you.	Qualitative	Custom
32	Have you talked about E Tū Tāngata with people who are not from your school? Please describe what happened.	Qualitative	Custom
33	At this school I feel I can join a new group even if I'm not sure I will fit in	Quantitative	<b>(A)</b> PRTS-A
34	At this school I feel I can try a new activity even if I don't think I will be very good at it	Quantitative	<b>(A)</b> PRTS-A
35	At this school I feel I can talk to people I don't know very well	Quantitative	Custom
36	At this school I feel I can be honest about what I think, even if people may not agree with me	Quantitative	Custom
37	At this school I feel I can ask questions without being judged	Quantitative	Custom
38	At this school I feel I can answer questions and share ideas, even if I'm not sure they are very good	Quantitative	Custom
39	I feel that people are only happy with me when I get things right	Quantitative	Custom
40	I feel that people are only happy with me when I do things well	Quantitative	Custom

41	When I make mistakes, I feel that people will be disappointed with me	Quantitative	Custom
42	When I make mistakes, it is an opportunity for me to learn	Quantitative	Custom
43	When I do not achieve very well, I feel like giving up	Quantitative	Custom
44	When I do not succeed at something, it shows I do not have enough talent	Quantitative	Custom
45	I feel like I can be myself at this school	Quantitative	SSWQ-SCS
46	I feel like I belong at this school	Quantitative	SSWQ-SCS
47	I'm glad I go to this school	Quantitative	Custom
48	At this school, I feel like I am a part of a community	Quantitative	Custom
49	This is a good school to be a part of	Quantitative	Custom

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*Note:* (R) = reverse coded item. Items marked **(A)** in the source column have been adapted from the original items in the source measure. Any items not marked with an **(A)** are the same as source measure's item.

B-CSCS: Brief-California School Climate Survey (You et al., 2014); SCASIM-St: School Climate and School Identification Measure – Student (Lee et al., 2017); DSCS-H: Delaware School Climate Survey – Home (Bear et al., 2015); GruKo4 (Schürer et al., 2021); WHITS: What's Happening In This School (Aldridge & Ala'l, 2013); SCM-R: School Climate Measure – Revised (Zullig et al., 2015); PRTS-A: Positive Risk Taking Scale – Adapted (Duell & Steinberg, 2020); SSWQ-SCS: Student Subjective Wellbeing Questionnaire - School Connectedness Subscale (Renshaw et al., 2015)

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