The Tapping Project: Introducing Emotional Freedom Techniques (EFT) to reduce anxiety and improve wellbeing in primary school students

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Doctor of Philosophy

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Northern Territory, Australia

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Declaration

I hereby declare that this thesis is an original work and is the result of my own ideas and investigations, and that the work of other people has been duly acknowledged. I further declare that the material contained herein has not been submitted previously for any degree at Charles Darwin University or any other institution.

I give consent to this thesis, when deposited in the University Library, being made available for loan and photocopying online via the University’s open access repository.

Name: Margaret Therese Lambert

Signed:

Date: 18 May, 2020
Dedication

This study is dedicated to my children

Elisa (dec.), Stephanie, Daniel, Alison, and Rebecca

who remain an ongoing source of inspiration and motivation.

In honouring the flow of life, I also dedicate this work to my parents

Frank and Peg Kearns (dec.)

who engendered in me appreciation for life’s mystery and lifelong learning.

*When the eye is unobstructed, the result is sight.*

*When the ear is unobstructed, the result is hearing.*

*When the nose is unobstructed, the result is smell.*

*When the mouth is unobstructed, the result is taste.*

*When the mind is unobstructed, the result is wisdom.*

*When the heart is unobstructed, the result is joy and love.*

Lao Tzu
Acknowledgements

The completion of this thesis was only possible with the contributions and encouragement of many people, and I acknowledge them here with heartfelt gratitude.

Charles Darwin University has provided a scholarship for my PhD research which has allowed me to pursue this study. Through the university, I have been fortunate with the appointment of three exceptional supervisors—Dr Sue Erica Smith, Associate Professor Simon Moss, and Professor Marilynne N Kirshbaum. I am extremely grateful for their professional, practical, and research guidance and their expertise across the respective disciplines of education, psychology, and health, all of which have been integral to my research. Throughout the course of study, my supervisors have shown respect and trust in my professional work and research, whilst providing their wisdom and support for the project. I have welcomed their open-mindedness, feedback, and enthusiasm at each stage of my research.

Conducting research in schools requires the support of educational professionals at many levels. I am grateful to the chief executive officer of the Northern Territory Department of Education, Vicky Bayliss, and the director of Northern Territory Catholic Education, Greg O’Mullane, for their interest in, and endorsement of, my research in schools, both prior to commencement and throughout its progression. Within the educational executive teams, I extend my thanks also to Bernadette Morriss, principals’ consultant, Northern Territory Catholic Education, and Maree Garrigan, acting executive director Schools Support Services, Northern Territory Department of Education, who were instrumental in advising me on the practical processes necessary for progressing the study from a conceptual phase to its implementation, within the respective educational systems.
My research in the four schools was assisted by the interest of each of the primary school principals and their willingness to engage in feedback sessions about the research project. Teachers of the eight classes were instrumental in the research undertaking, and I am very grateful for their enthusiastic participation and feedback at each stage of the project. I extend my sincere thanks to the principals and teachers, as well as assistant principals and social and wellbeing specialists, for welcoming me into the schools and for their genuine interest shown in supporting students’ wellbeing with new ideas and techniques. I hope that involvement in this study has provided complementary skills and knowledge in the quest to promote student wellbeing in their schools. I am heartened to know that some of the project knowledge has been further shared within the schools as well as with other schools, rendering our collective efforts worthwhile beyond the research participants.

I extend sincere thanks to the key participants in this study—the students. The student participants remained open-minded about the new methods presented for assisting their wellbeing, and they have paved the way for extending awareness about Emotional Freedom Techniques among children.

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Personal support is essential for undertaking a major study, and I extend sincere thanks to my husband, Garry, who has provided very welcome support, both in engaging discussion about the research and in domestic tasks. I am grateful for the challenging viewpoints and the many meals! My sincere appreciation is also extended to my family, friends, colleagues, and mentors who have supported the PhD undertaking with their interest, understanding of time commitments, and for keeping me grounded. Special thanks go to Christine Hart for her expertise in proof-reading this thesis.
Abstract

As the rates of childhood anxiety increase and manifest at younger ages, children’s mental health and wellbeing have become growing issues for primary schools. The purpose of the current study was to implement and evaluate Emotional Freedom Techniques (EFT), or tapping, as a class treatment that may support the social and emotional learning curriculum in primary schools. The Tapping Project was conducted as a longitudinal, evaluative study within a pragmatic framework, using mixed methods methodology, and assessed the effectiveness of EFT when used as a class intervention for student wellbeing. Several research questions were posed to explore the perceptions of students and teachers about using tapping as a class activity. Eight classes, consisting of 138 students and nine teachers across four schools, participated in the study. Following two 1-hour teacher training sessions and an introductory class lesson delivered by the researcher, teachers administered tapping sessions in classes 3 times a day for a period of 4 weeks. A second stage of 4-weeks tapping occurred in classes during the succeeding school term. Quantitative and qualitative measures found that EFT supports national educational social and emotional wellbeing curriculum, and may be a valuable inclusion in school programs. Results of the project revealed that both students and teachers thought tapping should be introduced to all students in primary schools.

Thematic analysis was applied to both student and teacher data sets. Analyses found that tapping is a mechanism for change, tapping skills were transferable to other contexts and, similar to other interventions, tapping was not effective on each occasion. In addition to calming effects, students felt the benefits of tapping extended to focus and concentration and a reduction in physical discomfort. Students were more likely to develop intrinsic motivation for tapping when the psychological needs of competence, autonomy, and relatedness were met. The thesis presents other key findings and recommendations.
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<td>analysis of variance</td>
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<td>CBT</td>
<td>cognitive behavioural therapy</td>
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<td>CE</td>
<td>Catholic Education</td>
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<td>CEO</td>
<td>chief executive officer</td>
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<tr>
<td>CET</td>
<td>cognitive evaluation theory</td>
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<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>DSM</td>
<td>Diagnostic Statistical Manual for Mental Disorders</td>
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<td>EFT</td>
<td>Emotional Freedom Techniques</td>
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<td>EP</td>
<td>energy psychology</td>
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<td>ESL</td>
<td>English as a second language</td>
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<td>fMRI</td>
<td>functional magnetic resonance imaging</td>
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<td>NAPLAN</td>
<td>National Assessment Program Literacy and Numeracy</td>
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<td>NT</td>
<td>Northern Territory</td>
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<td>NTCE</td>
<td>Northern Territory Catholic Education</td>
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<td>NTDoE</td>
<td>Northern Territory Department of Education</td>
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<td>PD</td>
<td>professional development</td>
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<td>PLS</td>
<td>plain language statement</td>
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<td>PTSD</td>
<td>post-traumatic stress disorder</td>
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<td>QOL</td>
<td>quality of life</td>
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<td>RCMAS-2</td>
<td>Revised Children’s Manifest Anxiety Scale, second edition</td>
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<td>RCT</td>
<td>random control trial</td>
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<td>SDT</td>
<td>self-determination theory</td>
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<td>SEL</td>
<td>social emotional learning</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>SUW</td>
<td>Subjective Units of Wellbeing</td>
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<tr>
<td>SUWS</td>
<td>Subjective Units of Wellbeing scores</td>
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<td>TCM</td>
<td>traditional Chinese medicine</td>
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<td>TFT</td>
<td>thought field therapy</td>
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<tr>
<td>TOMS</td>
<td>Tournament of Minds</td>
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<tr>
<td>UNCRC</td>
<td>United Nations Convention on the Rights of the Child</td>
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<td>WHO</td>
<td>World Health Organization</td>
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CHAPTER 1

INTRODUCTION

When I experience Dadirri, I am made whole again.
I can find my peace in this silent awareness.
Miriam-Rose Ungunmerr-Baumann

The ancient Indigenous concept of Dadirri, explained by Miriam-Rose Ungunmerr-Baumann, tribal leader and school principal of Nauiyu in the Northern Territory (NT), embraces the state of being whole (Ungunmerr-Baumann, 2010). Dadirri is akin to the experience of wellbeing, or wholebeing. As a contemplative practice, Dadirri embraces being at home with nature and silence. The art of listening, that stirs an awareness of the deep spring within us, makes possible the experience of Dadirri.

In the delivery of her talk at the Catholic Diocesan Leadership Conference in Darwin, NT, Miriam-Rose offered us all the spirit of Dadirri: “it is perhaps the greatest gift we can offer our fellow Australians” (Ungunmerr-Baumann, 2010, para. 3). This gift offers wholeness and an utmost experience of wellbeing. Dadirri is profound, yet elusive. Many Australians struggle in their daily lives, detached from the Dadirri experience. Instead, an increasing number of Australians, both Indigenous and non-Indigenous, of all ages, experience the turbulence of anxiety and mental health disturbances. For young people especially, concerns are raised at many levels—health, educational, social, and economical—as wellbeing states are diminished through the rise of anxiety and mental health disorders.
1.1 **The Problem: Anxiety among Children**

Mental health problems have become a leading cause of disability worldwide for young people aged 10-24 years (McGorry, Goldstone, Parker, Rickwood, & Hickie, 2014; Mokdad et al., 2016), and anxiety has been documented as the most prevalent mental health disorder in childhood (Helbing & Ficca, 2009; Platt, Williams, & Ginsburg, 2016). Fifty percent of all lifetime mental health disorders emerge by 14 years of age (Kessler et al., 2005; World Health Organization [WHO], 2020), with the mean age of onset of some anxiety disorders estimated to be before 15 years (De Lijster et al., 2016). Of all the conditions included in an Australian burden of disease study, anxiety, along with asthma, was found to be the leading non-fatal burden in both males and females aged 5-14, and was also found to be a cause of impaired health in infancy and early childhood (Australian Institute of Health and Welfare, 2019). The burden of disease analysis compared the impacts of a range of diseases, both fatal—dying with a disease—and non-fatal—living with a disease—and summarised the impacts as estimates of disability-adjusted life years, years lived with disability, and years of life lost. The estimated years lived with disability rates for anxiety disorders in females aged 5-14 were 13%, and in males, were 12%.

A recent national survey conducted in Australia showed that anxiety disorders affect around 7% of young Australians aged 4-17 years, or around 300,000 individuals (Lawrence et al., 2015). Items used in the questionnaire for the survey were based on criteria for anxiety listed in the Diagnostic Statistical Manual for Mental Disorders, fourth edition (DSM-IV; American Psychiatric Association, 2000). The number of young Australians being affected by anxiety disorders is probably higher than reported in the national survey, given that only four types of anxiety disorder—separation anxiety, generalized anxiety, social phobia, and obsessive-compulsive disorder—from the eight types identified in the DSM-IV were included in the survey. In addition, many young people who suffer with anxiety symptoms
do not meet the DSM-IV or DSM-5 criteria for anxiety disorder, (Grills-Taquechel, Fletcher, Vaughn, Denton, & Taylor, 2013). Anxiety may also be a subtype of an alternative diagnosis, such as mood disorder (Mazzone et al., 2007), reading disorder (Carroll & Iles, 2006), and autism (Magiati et al., 2016), and may therefore be overlooked as a comorbid condition, given that less focus has been devoted to comorbid disorders in children than the presentation of single disorders (Lavigne, Lebailly, Hopkins, Gouze, & Binns, 2009). Furthermore, some symptoms of anxiety may be unrecognised (Esbjorn, Somhovd, Turnstedt, & Reinholdt-Dunne, 2012) and therefore untreated, and children who are at risk of developing anxiety are not always evident (Roffey, 2016).

The Youth Survey 2012-2016 produced by Mission Australia and the Black Dog Institute has documented that around one in four Australian teenagers aged 15-19 years met the criteria “for having a probable serious mental health illness” (Mission Australia, 2017, p. 11). The report presents data from annual youth surveys that have been conducted by Mission Australia between 2012 and 2016, and claims to be the largest of its kind, with thousands of young Australians completing the survey each year. Differences in results between the 2016 and 2012 surveys show a statistically significant increase in the number of teenagers who met the criteria for probably serious mental illness, with 22.8% in 2016 and 18.7% in 2012. The report also noted that the risk of mental illness increases across teenage years, with approximately 21% of 15-year-old individuals meeting the criteria for a probable serious mental illness, compared with around 28% of 18 to 19-year-olds.

All these reports lead to the one conclusion—that child and youth anxiety is a dominant and critical issue, which must be addressed if we are to reduce the number of years lost to the burden of anxiety. Our efforts must be to improve wellbeing and the quality of life for young people so that they are able to reach their potential and become positive contributors to community life.
1.2 The Problem of Untreated Anxiety

Untreated anxiety in children poses a risk for future problems in adolescence and adulthood, which has substantial implications, not only for individuals but also for the wider community. Anxiety affects wellbeing states and, as a chronic condition, may interrupt the development of children and adolescents, preventing them from reaching their potential in areas of study, work, and relationships (Kendall, Safford, Flannery-Schroeder, & Webb, 2004). Mental and wellbeing states of young people may deteriorate because of impaired identification and treatment of mental disorders (Dewa, Cecil, Eastwood, Darzi, & Aylin, 2018).

Untreated childhood anxiety is also associated with adult anxiety, depression, substance abuse, educational underachievement, and suicidal behaviour (Kendall et al., 2004; Nepon, Belik, Bolton, & Sareen, 2010; Woodward & Fergusson, 2001), and research has shown that most young adult episodes of mental disorders were identified cases during the teenage years (Patton et al., 2014). Some serious behaviour problems in adolescence and adulthood, such as family violence and involvement in criminal activity, are likely to stem from childhood emotional problems, which typically include anxiety (Bayer et al., 2009; Hodgins, De Brito, Chhabra, & Côté, 2010). In addition, untreated anxiety places extra burden on the community. Government and non-government resources, such as financial and mental health care provisions, as well as educational and correctional services, are further stretched by problems associated with anxiety (Bayer et al., 2009; Royal Australian and New Zealand College of Psychiatrists, 2016). Interventions and treatments, along with preventative measures, are therefore necessary to reduce the short and long-term impacts of childhood anxiety.

The mental health and wellbeing of individuals are compromised by high levels or chronic states of anxiety (Australian Institute of Health and Welfare, 2019; De Beurs,
and numerous studies have linked poorer health outcomes to anxiety in both adults and children (Barger & Sydeman, 2005; Chang et al., 2016; Eisner et al., 2010; Kidwell, Nelson, & Van Dyk, 2015; Kubzansky & Kawachi, 2000; Tacón, McComb, Caldera, & Randolph, 2003). Not only does anxiety impair an individual’s state of health, but symptoms associated with chronic and untreated anxiety can greatly inhibit the functioning capacity of an individual. For example, some studies have found that anxiety disorders impair children’s independence in using daily living skills (Drahota, Sterling, Hwang, & Wood, 2013; Wood, Kiff, Jacobs, Ifekwunigwe, & Piacentini, 2007), and this impairment, therefore, presents problems for children in schools.

1.3 Anxiety as a Problem for Schools: Context for this Study

As the rates of childhood anxiety have increased and manifested at younger ages, children’s mental health has become a growing issue for primary schools (Australian Primary Principals Association, 2020; Headley & Campbell, 2013). Finding methods to improve children’s sense of wellbeing by reducing their levels of anxiety and the associated risk of impairment of their future development is imperative. Teachers are not trained as mental health professionals, yet must respond to challenging or disengaging behaviours of students who experience mental health struggles (Graham, Phelps, Maddison, & Fitzgerald, 2011). Providing both teachers and students with techniques that can assist with the management of challenging behaviours and mental health states is vital. Beyond the benefits that may be attained in the classroom as a result of reduced student anxiety are gains to community resources. Reducing the number of children who develop anxiety disorders will alleviate burdens on health, economic, and educational resources that are brought about by disabling mental health conditions (van Zoonen et al., 2014). The impact of anxiety on individual wellbeing is further described in Chapter 2.
Health research and promotion in current times must include an emphasis on wellbeing programs for children and interventions for anxiety that include methods for managing emotions. In Australia, preventative programs and early intervention for anxiety and depression in children is a national health commitment (Black Dog Institute, 2016; Lawrence et al., 2015). Finding techniques and programs that can be implemented across large groups of children and within economic constraints is paramount.

Emotional Freedom Techniques (EFT) has shown promise in reducing anxiety and improving wellbeing in clinical and workshop settings, and a detailed account of research in this field is included in Chapter 3. As a psychologist in clinical practice and an EFT trainer for 16 years, I have noted, through observation and client reporting, positive outcomes in individuals after using EFT in both clinical and workshop settings. Given my background as a primary school teacher, I have raised the question as to whether EFT may be effective for reducing anxiety and improving student wellbeing when applied as a class technique in a primary school environment. My background has not only formed the research topic and objectives, but has also guided the design and processes involved in the study. From this standpoint, the current study has been designed to explore the research topic within a practical framework. From the extensive search undertaken on previous research conducted in the field, I understand this is the first study that applies EFT as a whole class technique in primary school class settings. Thus, whether the benefits of EFT persist when embedded within the complex physical and social dynamics of a classroom remains to be substantiated.

1.4 Research Objective

The objective of this research is to investigate the effects of Emotional Freedom Techniques (EFT) on anxiety symptoms and wellbeing states in primary school children. The study further evaluates the effectiveness of EFT when applied across class groups, with
teachers administering the techniques as a class activity. Specifically, this research examines:

- the perceptions of Year 6 students in Northern Territory (NT) primary schools related to using EFT in class
- whether EFT is effective for reducing anxiety and distressing symptoms and improving wellbeing in Year 6 students
- the perceptions of teachers about using EFT, with particular focus on:
  - the effects of EFT on the class, such as any changes in behaviour, performance, and concentration
  - the effects of EFT on teachers themselves
- the value and effectiveness of using EFT as a class activity
- the value of EFT in supporting the social and emotional learning curriculum
- whether EFT is used by students and teachers beyond the classroom sessions

1.5 Thesis Overview and Structure

This thesis contains ten chapters. Chapter 1 has presented the context for the research and the nature of issues being studied. The chapter has introduced the local context of the study through the Indigenous concept of Dadirri and wholebeing, and has raised the problem of anxiety among children and the problem of untreated anxiety. Also presented are the wider implications of untreated anxiety, as children grow into adolescents and adults, with issues becoming far reaching, affecting the individual, the family, and wider community. This introductory chapter has made the link between anxiety and levels of wellbeing. The chapter positions the study in the educational arena, identifying the need to equip teachers and students with wellbeing techniques. Finally, Chapter 1 has provided
insight into my personal interest in pursuing this study and has defined the research objectives.

Chapter 2 provides the processes that were undertaken to identify relevant literature for the current study. The chapter explores the concept and nature of wellbeing from various perspectives, such as historic, philosophical, psychological, and physical. Various models and theories of wellbeing that have underpinned these different perspectives are presented, which contextualises the notion of wellbeing viewed in this study as analogous to wholebeing. Chapter 2 further explores the relationship between wellbeing and quality of life, and introduces anxiety as a condition that diminishes quality of life. The impact of anxiety on wellbeing is presented, with further attention paid to the impairment of children’s wellbeing due to anxiety disorders.

Chapter 3 presents children’s wellbeing in the context of educational systems. The chapter outlines the Australian policy direction for schools that highlights the importance of student wellbeing. The chapter further presents a range of wellbeing models and approaches that have been implemented in schools, and provides the rationale for investigating EFT as an enhancement to social and emotional learning programs in schools. An extensive literature review on EFT is provided in this chapter, commencing with the branch of psychology known as energy psychology. Background information is provided on EFT and its links to traditional Chinese medicine. Research related to the application of EFT for anxiety as well as the application of EFT with children is presented, which leads into the rationale for this study.

Chapter 4 addresses methodological aspects of the study. Commencing with the research purpose, the study’s conceptual framework is presented. The ontological, epistemological, and methodological perspectives that underpin diverse paradigms are explored. Arising from this exploration, the rationale for the pragmatic paradigm as the
framework for this study is presented. Also included in Chapter 4 are the research questions that have guided the study and a comprehensive description of the research design, including data collection methods, measures used, and data analysis.

Chapter 5 describes the actual application of the research design, with particular reference to adjustments that were introduced as a result of working within the primary school contexts. This chapter provides a detailed account of the implementation of the study.

Chapter 6 presents the quantitative findings of the study. The study’s sample and the methods used to analyse the quantitative data are described. The chapter provides information about the statistical analyses undertaken and interpretations of the findings.

Chapter 7 and Chapter 8 report the qualitative findings of the study. Chapter 7 presents an analysis of student experiences and their perceptions of tapping. A table representing student comments, which indicated tapping was either helpful or not helpful is presented, along with students’ actual comments about their tapping experiences. Chapter 7 presents the thematic analysis processes that were undertaken, from which three main themes and seven sub-themes were derived. Excerpts of conversations with students are provided in support of these themes and sub-themes.

Chapter 8 further presents the qualitative findings of the study. This chapter focuses on teacher experiences with tapping. The processes undertaken in the thematic analysis of the teacher data set are presented, along with the three main themes and five sub-themes that were derived from the processes. Quotations from teachers are provided in support of the themes and sub-themes derived.

Chapter 9 discusses the findings of the study in light of the research questions, drawing on both the quantitative and qualitative information gathered. Given that the perceptions of students and teachers were central to the findings of the research, the nature of perception is explored in this chapter. The theories of self-determination and cognitive
evaluation are presented as the lens through which the findings of the study are examined. Within these theories, the concepts of intrinsic and extrinsic motivation are introduced and the relationship between intrinsic motivation and wellbeing is explored. The “Discussion” chapter also references the influence of the pragmatic paradigm on the methods and practices used throughout the study. This chapter further presents the limitations of the study and suggestions for future research.

Chapter 10 provides an overview of the study and summarises the key findings. Suggestions for future research are provided, along with recommendations arising from the study, and a step-by-step tapping guide for teachers. Finally, the concluding comments of the thesis promotes techniques that empower students in their wellbeing management, reconnects the study to the local Indigenous concept of wellbeing and wholebeing integration, and affirms EFT as an intervention that supports national educational social and emotional wellbeing policies.
CHAPTER 2
REVIEW OF WELLBEING AND ANXIETY

2.1 Processes for the Identification of Relevant Literature

An extensive literature search was conducted for the purpose of identifying relevant literature on topics related to this study. This process commenced with defining the topic and deciding on the keywords to be used as search terms. The main topic for the current research was defined through the identification of several related areas: anxiety and wellbeing of children, social and emotional wellbeing programs in schools, and the efficacy of Emotional Freedom Techniques (EFT). A mind map (Appendix A) was created to assist with defining the topic and with the identification of search terms.

The search for relevant literature commenced in August, 2017. As the study developed, topics were refined and additional topics or themes were identified that were relevant to the study. The literature search, therefore, continued throughout the term of the study, 2017 - 2020. A systematic approach using identified keywords was conducted for searching the literature within academic databases. Google Scholar was also used for conducting searches using matching keyword combinations. For literature related to EFT, searches were conducted through the Association for Comprehensive Energy Psychology research database, which accumulates research in the fields of energy psychology and EFT. This Association was also contacted by email to obtain any recent studies that may not yet be included in the research database.

Alongside keyword searches, the snowballing technique was used for identifying sources relevant to the study. Using this technique, additional literature was identified through the bibliographic information provided in particular papers that were examined and found to be related to the identified research topics (Greenhalgh & Peacock, 2005).
Online databases that were accessed through Charles Darwin University library were CINAHL Plus, eBook Academic Collection, Education Research Complete, ERIC, MEDLINE, Nursing/Academic Edition, PsychARTICLES, Psychology and Behavioral Sciences Collection, PsychINFO, and ProQuest. Boolean search techniques were used to combine search terms, and truncation was used to capture a wider range of related literature—such as the search term child* to retrieve literature containing both child and children. Variations of spelling were also included in search terms, such as wellbeing, well-being, well being, and behaviour, behavior.

Search terms used in this study were child wellbeing, child anxiety, child anxiety prevalence, child anxiety trajectory, child anxiety impact, anxiety preventative techniques, anxiety treatment, anxiety intervention, holistic health models, wellbeing and performance, quality of life, energy psychology, emotional freedom techniques, EFT, tapping, acupuncture research, traditional Chinese medicine, TCM, social emotional learning, SEL, Australian school SEL policy, cognitive behaviour therapy, positive psychology, mindfulness, social emotional learning, NT school SEL policy, school SEL programs, school social and emotional programs. Searches used keywords in various combinations. For all keywords related to child anxiety and child wellbeing, searches were limited by English language and date—the past 20 years.

The search results were analysed alongside the literature search, and involved critical reading of material and documenting similarities and differences among the literature. Folders were created to compile works of similar topics and personal notes. The mind map created for search terms also guided the analysis of works and writing of the literature review. Child wellbeing was defined as the main focus for the research.
2.2 The Nature of Wellbeing

One of the issues that has arisen in the discussion and research related to the wellbeing of children is the absence of a clear definition and common understanding about the term wellbeing, because the term is intangible and complex (Dodge, Daly, Huyton, & Sanders, 2012) as well as multi-dimensional (Pollard & Lee, 2003). Wellbeing is a word that is used commonly to describe how people feel about their lives, but the interpretation of the word may vary across individuals, disciplines, communities, cultures, and age groups (Camfield & Skevington, 2008; Pollard & Lee, 2003).

Wellbeing, or its alternative and composite terms, such as subjective wellbeing or social wellbeing, has sometimes been used interchangeably with happiness or life satisfaction (Theobald & Cooper, 2012), with higher levels of wellbeing linked to feelings of happiness and satisfaction, and lower levels of wellbeing associated with unhappiness or dissatisfaction (Bradburn, 1969; Steptoe, 2019). Some of the alternative terms that are used synonymously with wellbeing are health, wellness, physical or mental health, quality of life, and psychological or emotional wellbeing. Terms such as *physical wellbeing, mental wellbeing* or *psychological wellbeing* narrow the focus to a particular dimension of an individual’s health and wellbeing, thereby isolating other aspects, such as the emotional or spiritual states, or all other aspects not considered to fall within the scope of the term. In this manner, individuals are viewed in segmented entities rather than as whole beings who are multi-dimensional.

John Broome, in his contribution to the 2002 World Health Organization (WHO) publication on measures of population health, argued that health cannot be, and should not be, separated from wellbeing (Broome, 2002). Health may be considered to be a subset of general wellbeing but, essentially, they are inseparable. The wellbeing of individuals and communities is a confluence of inextricably linked factors, such as social, emotional,
spiritual, financial, physical, cultural, and historic. Furthermore, individuals vary in the way they determine and report their states of wellbeing. Some individuals may view particular features of their lives as having substantial impact on their wellbeing states, whereas other individuals may consider these or different features to have either more or less impact on their wellbeing (Bojanowska & Zalewska, 2016; Steptoe, 2019).

Regardless of the way in which individuals view features of their wellbeing, each dimension of an individual most likely affects the other dimensions. For example, individuals who are anxious (emotional dimension) may not be able to function at work (social, economic, or financial dimension) or attend social engagements (social dimension), and they may become fatigued (physical dimension) or depressed (emotional or psychological dimension). Establishing causality among the different dimensions may be difficult. For example, does feeling anxious or depressed cause a person to feel fatigued, or does feeling fatigued cause a person to feel anxious and depressed? Clearly, dimensions of wellbeing are interconnected, and examining the dimensions of wellbeing as discrete and unrelated is difficult.

Whilst the inseparability of health and wellbeing is supported (Bognar, 2008; Brock, 2002; Cloninger, Salloum, & Mezzich, 2012), Brock (2002) draws on the distinction made by Broome (1991) between the quantity, or incidences of health and mortality conditions, versus the goodness of health, or the extent that functional impairment reduces individuals’ general wellbeing. Brock argues that pragmatic factors, such as eliminating disease to prevent the spread of infection, or practices to restore sight, require health researchers and practitioners to focus on the quantity of health, consisting of the natural (physical) health states of a person or community. However, the “quantitative sense of health” must be combined with the “evaluative sense” (Brock, 2002, p.117), that formulates judgments about the goodness of health, to make a more complete assessment about the health and wellbeing of individuals.
The perceptions of individuals regarding their functional impairments will vary, and people will likely place different emphases on aspects of their impairments. For example, some people who experience hearing loss may consider this impairment to have little effect on their general health, as they continue to function well in other areas of their lives. Other people, however, may focus on the loss, and they may feel resentful and unhappy with their lives, leading to a significantly reduced sense of wellbeing. The evaluative sense of an individual’s health, in this case, is linked to the quantity of health. Health models that embrace both the quantity and evaluative health aspects of individuals can guide practice in support of this more thorough understanding of individuals’ health and wellbeing.

Historically, philosophers dating back to ancient Greece have debated wellbeing, happiness, and the meaning of life. In the book, *Nicomachean Ethics*, Aristotle presented the concept of eudaimonia (Aristotle, n.d./1925), which has often been erroneously translated as happiness (Ryff, 1989). In contemporary understanding, happiness is generally regarded as a state of pleasure and joy. Some scholars may also consider happiness to include a positive sense of wellbeing. However, the word eudaimonia is derived from the Greek eu, meaning good, and daimon (daemon), meaning guardian (Harper, 2019). Beyond the good and pleasurable, or positive, feelings that are associated with happiness, eudaimonia also embraces activities of the soul in accordance with guidance and virtue, or the most noble and pleasant life (Parry, 2014).

Many researchers have aligned Aristotle’s concept of eudaimonia to wellbeing (Bradburn, 1969; Camfield & Skevington, 2008; Estola, Farquhar, & Puroila, 2014; Ryff, 1989), and accordingly, wellbeing may also be considered by other individuals and groups to be a broader concept than happiness or pleasurable feelings. The WHO presented a definition of health in 1946 as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946, p.2). This statement was
considered by some people to be a bold, utopian and an unattainable ideal, because no one is in a state of being complete in wellbeing (Misselbrook, 2014). Although this definition presented by the WHO around 70 years ago provided a broad, holistic view of health in terms of a person’s wellbeing, significant change in the Western health systems has not ensued (Alonso, 2004). Wellbeing, as a concept that encapsulates all dimensions of individuals, has generally not corresponded to reformed medical approaches. Rather, scientific and medical progress have continued to be directed through reductionist approaches within the structure of dualism. Dualistic approaches have possibly limited the manner in which both adult and child wellbeing is considered.

2.2.1 Dualism

Dualism is characterised by the deconstruction of complex processes, such as the state of a person’s health, into component parts, to assist understanding and treatment of the malfunctioning elements (Beresford, 2010; De Simone, 2006). Often referred to as Cartesian Dualism on account of its proponent, Descartes, the dualist medical model suggests that things— wholes—can be understood only through the examination of their component parts, in much the same way that machines can be understood only through the study of their individual parts (Descartes, Cottingham, Stoothoff, & Murdoch, 1984). Within the paradigm of dualism, wellbeing is viewed in terms of the state of the body—physical substance—or the state of the mind—thought substance (Robinson, 2013). The Western model of health has long been based on the duality of body and mind, largely ignoring the interaction of all other aspects of patients’ lives (Gross, 1980). Within the dualist model, the focus of health research, practice, and treatment has been on pathology and the illness of a person, which is viewed as a failing of either the soma (body) or the mind (Alonso et al., 2004). The main objective for health practice has been the identification and diagnosis of the sick part of the
body or mind to repair it. In this model, where patients are viewed as a compilation of individual parts, attention is directed to the part of the body that is malfunctioning or ill, and not to the broader experiences of the patients and their general wellbeing, as defined by the WHO. In the dualist medical model, the presenting problem of a patient is deemed, through diagnosis, to be either physical or psychological in nature, and treatment is based accordingly. In the 21st century, most philosophers and neuroscientists reject the notion of dualism (Kalat, 2019). Instead, many health researchers and organisations, such as the WHO, have attempted to broaden the paradigm of health and illness, or wellbeing, beyond the dualistic biomedical model to include biological, psychological, and social factors (Alonso, 2004).

2.2.2 Biopsychosocial model

The biopsychosocial model of health presented by Engel in 1977 incorporates the interrelationships between biological, psychological, environmental, and socio-political factors in the etiology of illness and the experience of the patient (Engel, 1977). Support for this model has been drawn from studies of mental health patients that have shown the importance of the subjective experiences in the recovery of patients. That is, recovery is promoted when enabling environments (Danford & Steinfeld, 1999)—places that support the health of a patient through social, material, and affective-related activities—are provided. Hence, the patients’ subjective experiences of their conditions are of key importance in their recovery (Duff, 2012). The biopsychosocial model is generally acknowledged as being a more realistic model of health and wellbeing than the dualist model, embodying the complexities and interrelationships that affect people’s lives (Andresen, Caputi, & Oades, 2006; Kusnanto, Agustian, & Hilmanto, 2018). This model acknowledges that the lived experiences of patients, along with various social factors, are pivotal to the human condition.
and to individuals’ wellbeing states. Some of these experiences and factors may be abstract and intangible, such as inner feelings or connection with nature (Lumber, Richardson, & Sheffield, 2017), and may not be easily quantified through rigorous scientific examination. Nevertheless, some studies have found benefits in applying a biopsychosocial model for some health conditions (Saragiotto, de Almeida, Yamato, & Maher, 2016; Schoenfeld-Smith, et al., 1996). For example, in a longitudinal study, Schoenfeld-Smith et al. (1996) investigated the biopsychosocial determinants of pain and helplessness in war veterans who were diagnosed with rheumatoid arthritis. The study found that, rather than the disease activity itself being the main factor in patients’ disability, pain and helplessness were key contributors to patients’ future disability. In particular, psychological and physical disability were directly associated with helplessness and pain. Based on this finding, the researchers recommended that a broad treatment approach that includes biopsychosocial factors should be applied in the condition of rheumatoid arthritis. The biopsychosocial model regards the psychological and physical aspects as pivotal to the human condition and to the individual’s state of wellbeing.

The biopsychosocial model of health is widely accepted among the public, as well as across many social domains, such as health education, health psychology, and public health (Alonso, 2004). This model has also influenced mental health care internationally (Papadimitriou, 2017); however, the omission of the spiritual dimension of individuals renders the model incomplete, in reference to a holistic approach to human wellbeing. Sulmasy (2006) presents the belief that humans are all spiritual beings, and that health and healing must include the spiritual aspects of both patients and health care professionals.
2.2.3 Biopsychosocial-spiritual model

In his writing on spirituality and health care practices, Sulmasy (2006) quotes a statement expressed to the American Medical Association by 20th century Jewish philosopher and theologian, Abraham Heschel: “to heal a person one must first be a person” (Sulmasy, 2006, p. 16). Both Heschel and Sulmasy suggest that professionals engaged in the healing of people must firstly connect with their patients in a personal and compassionate manner. Often, patients report that their health professionals were “dehumanizing or depersonalizing” (Peloquin, 1993, p. 830). Patients from Peloquin’s (1993) study reported that health care practitioners failed to recognise the personal meaning associated with the patients’ health conditions. Supporting these claims, palliative care physician, David Kuhl, recounted the story of Marjorie in hospital when she reflected on receiving her diagnosis of cancer: “The way the doctor talked to me caused me more pain than the disease itself” (Kuhl, 2005, p. 1607). From these accounts, patients may feel upset, dehumanised, or depersonalised when health practitioners disregard their distinct qualities, feelings, and preferences associated with their conditions.

Depersonalisation is experienced by patients through communication difficulties with their physicians (Rocque & Leanza, 2015), which, in part, is a result of the current medical system in Australia and some other Western countries. Economic rationalism and efficiencies that underpin the political structures and health care systems have diminished the person-to-person relating that Heschel, Sulmasy, and Kuhl, and others maintain is integral to individuals’ wellbeing and to their healing experiences. For professional consultations, time constraints limit the capacity of health practitioners to explore personal and spiritual dimensions of their patients that may be foundational to their wellbeing and healing. While the biopsychosocial-spiritual approach may be regarded as beneficial for patient care, a discrepancy exists between this model of wellbeing and the general practice of Western
health care services. To align practice with theory, a revision of health and wellbeing services is warranted. Furthermore, the dimension of spirituality that is often omitted in patient care must be included in health and wellbeing models and practice, if holistic approaches are desired. The biopsychosocial-spiritual model of wellbeing supports the notion of wholebeing.

2.2.4 Holistic health: Wholebeing

The notion of wellbeing is complex. Holistic health has been defined by Gross (1980) as “practices and philosophies that consider total individuals in their approaches to wellbeing” (Gross, 1980, p.96). Holistic health, therefore, addresses all the dimensions of a person, incorporating physical, social, emotional, and spiritual elements. In recent decades, the concept of holistic health and wellbeing has re-emerged as a popular model for health practices (Gordon, 1990; Huljev & Pandak, 2016).

The concept of holistic health has evolved from Smuts’ theory of holism presented in the 1920s (Fetter & Koch, 2009). Derived from the Greek word holos, meaning whole or complete, the term holism conveys the Aristotlian notion that the whole of natural objects is more than the sum of their parts (Smuts, 1926). Smuts posited that all things are wholes, and the wholes are not merely the arrangement of elements or parts—there is “something more” (Smuts, 1926, p. 273) that exists beyond the elements, which holds things together. The “something more” that Smuts has expressed may include the processes and interactions, both present and historical, that are an integral part of the creation of the whole (DeLanda, 2006).

According to DeLanda, the whole emerges from interactions between parts and cannot be reduced to the sum of parts. Wholeness, as applied to human beings, therefore, involves not only the biological, psychological, social, and spiritual dimensions of individuals, but also the complex processes of interaction of all other components of their
lives, such as thoughts, habits, skills, and senses (Price-Robertson & Duff, 2016). This concept forms the basis of assemblage theory and bears a resemblance to the Australian Indigenous concept of Dadirri, which embraces interconnections and interrelationships with self, others, and nature as the essence of being whole.

2.3 Assemblage and Non-Linear Theories

Proposed by French philosopher, Gilles Deleuze, and French psychiatrist, Félix Guattari in 1980, and further developed by DeLanda (2006), assemblage theory suggests that entities are not singular, fixed, or complete in their nature. Rather, living entities are historical constructions that comprise underlying systems and processes that are fluid and changing. The word assemblage would appear to mean the grouping together of entities; however, assemblage is an imprecise English translation for the French word, agencement (Phillips, 2006). Deleuze and Guattari’s concept is broader than entities grouping or assembling together. Their theory of agencement involves also the arrangement of connections that exist between entities or concepts that produce the “sense of the concepts” (Phillips, 2006, p. 108), or their beingness.

Many of the models of health and wellbeing can be viewed as effects of assemblages of multiple dimensions (Duff, 2014), such as physical and cognitive states, institutional structures, relationships, and spirituality. Assemblage theory conforms to the concept of nonlinear dynamic systems, in which human development is considered to be more complex, or nonlinear, than simple, or linear (Vallacher, Read, & Nowak, 2002).

Wellbeing, according to nonlinear dynamic systems and assemblage theories, is a state of becoming (Fox, 2011). This concept is more representative of the human condition than other explanations, such as duality, that simplify people’s lives and states of wellbeing into an either-or condition. Undeniably, people are complex entities, constantly in a state of
change, comprised of multiple factors—such as genetics, biology, history, environment, and human relationships—who experience interactions in their environment, both consciously and unconsciously (Tyson, 2005). Any theory of wellbeing must therefore embrace this complex nature of human life, and the term wellbeing itself may be incongruent with the broad-ranging definition of the human condition, such as expounded in nonlinear dynamic systems, assemblage theories, and the concept of holism. The term wellbeing may present a distorted perception of the reality of being human, through the inferred emphasis on wellness.

Wellbeing is comprised of two words, well and being. The term carries the implied, or stated, meaning of being well. This focus appears to undervalue the human experience of not being well—the experiences of pain, suffering, hurt, and illness—that also add meaning to people’s lives. The term wellbeing would appear to encourage individuals to always seek the positive experiences in their lives, thereby diminishing, disregarding, or dispensing of the more difficult experiences.

The definition of wellbeing presented by the WHO in 1946, expressed earlier in this chapter—the state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity—may be, as suggested by Misselbrook (2014), utopian, and unattainable, and may leave individuals feeling defective when they are not feeling in this state of wellbeing. Furthermore, the emergence of positive psychology may have presented a perception of wellbeing with a hedonic emphasis, that focuses on positive emotional states and experiences—happiness and success stories—with avoidance of pain experiences, as a measure of a healthy or productive life (Mackay, 2013). When faced with a utopian version of health and life as the desired goal, some individuals may believe they are defective in some way when they perceive an absence of happiness and success in their lives. These individuals may feel diminished as human beings, and may seek health treatment on account of feeling defective due to their unhappy or inadequate lives.
In contrast to an emphasis on happiness and wellbeing, a wholebeing outlook, in which the whole range of human experiences and emotions are validated, even valued, as approvingly as happiness and success experiences, is more representative of the human condition, and may be a more realistic approach for people’s lives. Carl Rogers, humanistic psychologist of the 20th century, believed that a characteristic of the fully functioning person includes acceptance of the broad range of experiences and emotions, both positive and negative (Rogers, 1974). According to Rogers, individuals move towards becoming fully functioning when there is openness and awareness, rather than creation of barriers, of all of the organismic feelings and responses, which corresponds to the notion of wholebeing.

2.4 Wellbeing - Wholebeing

This thesis presents the term wellbeing in the context of wholebeing and interchangeable with the phrase health and wellbeing. Presentation of wellbeing in this manner is consistent with the holism paradigm, nonlinear dynamic systems, and assemblage theories. In this thesis, wellbeing is inclusive of all the physical, mental, emotional, social, and spiritual elements that comprise current and historic aspects and interrelationships, both consciously and unconsciously. Individuals, specifically children in this study, may understand some of the issues affecting their sense of wellbeing—their subjective wellbeing. Further to the subjective notion, however, wellbeing states are inclusive of objective components, such as socio-economic status or health conditions that are observable to other individuals but may not be known by the child. Possibly, some objective aspects of wellbeing influence subjective states of individuals (Diener, 1984). In addition, other factors affecting children’s wellbeing may not be known to them or to other people—the unconscious interrelationships. Children, in particular, are changing and developing in a range of ways through their natural growth and experiences. As with the general population,
isolating one aspect of children’s development, without consideration for all other dimensions and interactions affecting their lives and their states of wellbeing, is a simplistic approach in understanding their wellbeing.

2.4.1 The relationship between wellbeing, subjective and objective dimensions, and quality of life

Wellbeing is generally considered to be subjective in nature, encapsulating the unique way in which individuals experiences their lives (Diener, 2006). The relationship between the components that comprise subjective wellbeing has remained ambiguous, and an expansive amount of research has been conducted to explain the structure of subjective wellbeing (Busseri, 2018). International contributors to the establishment of guidelines for indicators of subjective wellbeing and ill-being have defined subjective wellbeing as “an umbrella term for the different valuations people make regarding their lives, the events happening to them, their bodies and minds, and the circumstances in which they live” (Diener, 2006, p. 400). Subjective wellbeing is therefore influenced by an individual’s value set and cultural perspectives. Diener (1984) proposed that subjective wellbeing measures comprise the following three elements: they are subjective, they include positive measures, and they include an assessment of all aspects of an individual’s life; however, this measurement will vary according to the time frame that is considered in the assessment.

Subjective wellbeing may be considered synonymous with subjective quality of life (Camfield & Skevington, 2008) because of the similarity of descriptions for each of the terms. The WHO (2019) has defined quality of life (QOL) as:

an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to
their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships, and their relationship to salient features of their environment. (WHO, 2019, para. 2)

This definition closely resembles the previously mentioned definition of subjective wellbeing expressed in Diener’s (2006) paper, while underscoring the subjective nature of QOL. In this regard, the WHO definition of QOL is representative of subjective quality of life. In many studies, the description of QOL is aligned with the WHO QOL definition, featuring the subjective nature of QOL (Olatunji, Cisler, & Tolin, 2007). However, in addition to the subjective dimension, QOL, like wellbeing, entails objective components that consist of the state or condition of an individual that is observed or diagnosed by other people, such as socio-economic status, educational opportunities, or health condition (Aki et al., 2008; Cummins, 2000; Hayhurst, Massie, Dunn, Lewis, & Drake, 2014).

Similar to wellbeing, in QOL, the objective dimensions are likely to influence the subjective dimension. Furthermore, the objective views of QOL and wellbeing may vary from the respective perceived levels reported by individuals. Aspects of people’s lives that are identified by other people may remain obscure to the individuals themselves, and therefore, not perceptibly affect their QOL or subjective wellbeing. For example, some biological, social, or mental health conditions that are not noticed by individuals may be identified by professionals as detrimental to the QOL of individuals’ wellbeing. To illustrate, some childhood conditions such as otitis media (middle ear infection) that have been diagnosed by medical practitioners and are known to cause impairment to a child’s health, or the display of some mental health symptoms, may not be experienced by the child as problematic or a diminishment of QOL or wellbeing.
The objective dimensions of QOL and wellbeing are important for diagnosis, prevention, and treatment of conditions, to not only improve the QOL and wellbeing of individuals, but also to manage the potential burden on community. Some infectious diseases, for example, or mental health conditions, may remain undetected if objective measures were not implemented, particularly in cases where subjective perceptions are devoid of negative symptoms or impacts on an individual’s QOL or wellbeing. Objective dimensions are, therefore, significant components of QOL and wellbeing for the discovery of potential or actual threats to individuals and community. Combining subjective perceptions with objective dimensions provides a more complete description of the overall QOL and wellbeing of individuals and communities.

This study particularly focuses on the subjective wellbeing of individuals. Given the similarities and overlap between wellbeing and QOL, this thesis may also include or imply reference to QOL when describing wellbeing states, and use the terms wellbeing and QOL synonymously. Specifically, this study examines the perceptions of Year 6 students about their anxiety levels and wellbeing, and further reports on the subjective perceptions of the class teachers about aspects of wellbeing and functioning of students.

2.5 Anxiety

The American Psychological Association defines anxiety as “an emotion characterised by feelings of tension, worried thoughts, and physical changes like increased blood pressure” (American Psychological Association, 2019, para. 1). In addition, some other physical symptoms associated with anxiety are noted as sweating, trembling, dizziness, or a rapid heartbeat. Individuals normally experience some levels of anxiety (Helbing & Ficca, 2009); however, ongoing or elevated levels of anxiety can impair a person’s wellbeing.
Anxiety affects individuals across age groups, and many young people experience distress and impairment as a result of anxiety (Towe-Goodman, Franz, Copeland, Angold, & Egger, 2014). The link between adult depressive and anxiety disorders and childhood adversity is well documented (Bandoli et al., 2017; Hovens et al., 2012; Marackova et al., 2016), and many cases of adult anxiety conditions have stemmed from adverse childhood experiences (Merrick et al., 2017). Individuals may experience anxiety disorders when their wellbeing is significantly affected by anxiety symptoms. Anxiety disorders consist of recurring intrusive thoughts or concerns whereby people will avoid situations that cause them to worry (American Psychological Association, 2019). Individuals with anxiety disorders are impeded in ways that affect their QOL and wellbeing.

### 2.5.1 The impact of anxiety on QOL and wellbeing

An abundance of evidence has found that anxiety substantially diminishes QOL (Aderka et al., 2012; Alonso et al., 2004; Barrera & Norton, 2009; Davidoff, Christensen, Khalili, Nguyen, & IsHak, 2012; Olatunji et al., 2007; Panayiotou & Karekla, 2013; Wong, Sarver, & Beidel, 2012). Results of a meta-analytic review showed that patients with anxiety disorders rated their QOL in the domains of physical health, mental health, social activities, work, and home and family, as poorer than nonclinical control respondents (Olatunji et al., 2007), with the highest levels of impairment associated with the domains of mental health and social functioning. Interestingly, no significant difference was found between the level of QOL impairment and any of the anxiety disorders—social phobia, post-traumatic stress disorder (PTSD), generalised anxiety disorder, panic disorder, obsessive-compulsive disorder, or any other anxiety disorder—suggesting that all anxiety disorders significantly impair individual wellbeing. This result is consistent with the study of Barrera & Norton (2009) which found that individuals with generalised anxiety disorder, social phobia, and
panic disorder reported lower QOL than non-anxious adults, with the degree of impairment being similar for the different disorders.

However, in a WHO European study that investigated disability and QOL impact of mental disorders among adults in six European countries—Belgium, France, Germany, Italy, the Netherlands, and Spain—a difference was found between the various anxiety conditions and the level of impact on QOL (Alonso et al., 2004). Specifically, the anxiety conditions PTSD, panic disorder, and social phobia were among the mental disorders that had the greatest impact on QOL. Despite low QOL in individuals with generalised anxiety disorder, agoraphobia, and specific phobia, the levels were even lower in individuals with PTSD, panic disorder, and social phobia.

The variation in results found between the extensive study conducted by Alonso et al. (2004) and the meta-analytic review by Olatunji et al. (2007) could be ascribed to some key methodological differences between the two studies. First, the studies comprised samples from European countries and the United States respectively. Second, the sample size in the study of Alonso et al. ($n = 21,425$) was almost 10 times larger than in review of Olatunji et al. ($n = 2,892$), with the mean age also being around 7 years older, at 47 years. Third, the study by Alonso et al. included non-institutionalised adults who responded to a computer survey conducted over a period of around 7 months, compared with the sample used by Olatunji that comprised samples of patients diagnosed with an anxiety disorder. Regardless of differences in results that were found in each of the studies, both studies showed strong support for the substantial level of disability and loss of QOL experienced by individuals with anxiety disorders.

Impairments to wellbeing resulting from anxiety conditions may impact individuals in varying ways related to QOL. Furthermore, anxiety disorders may be multidimensional, with specific disorders associated with greater impairment in a particular dimension of QOL. For
example, the QOL dimension of mental health was found to be significantly diminished for individuals with PTSD, generalised anxiety disorder, panic disorder, and mixed anxiety, compared with comparison individuals (Mendelowicz & Stein, 2000), while social disability was found to be the most significant QOL impairment for individuals with social anxiety (Michail & Birchwood, 2014).

Varying levels of functional impairment have been found in children with anxiety disorders. Some of the ways in which children are impaired by anxiety include impairment of academic performance, social life, and development of social skills (Mazzone et al., 2007), diminished general wellbeing and health outcomes (Helbing & Ficca, 2009; Stevanovic, 2007), and behavioural issues including sleep and eating problems (Alfano, Reynolds, Scott, Dahl, & Mellman, 2013; Farrow & Coulthard, 2012). Anxiety in children disrupts family, school, and social relationships, and a negative impact has been found on family functioning in preschool children with anxiety (Towe-Goodman et al., 2014). In addition, anxiety in children is frequently found to be comorbid with physical health problems (Balázs et al., 2018; Kariuki-Nyuthe & Stein, 2015; Lecrubier, 2001; Merikangas et al., 2015), resulting in further impact on wellbeing. Some responses of children to their anxiety and stress can be further detrimental to their wellbeing. For example, Chan Poon and Hang Tang (2016) found that some children, aged 9-11, ruminated on their negative feelings or catastrophised about negative aspects of events, reporting higher anxiety levels than children who did not engage in rumination or catastrophising.

Given the links between anxiety and reduced QOL, as well as the associations shown between childhood anxiety, adult mental health conditions, and diminished QOL, a focus on children’s anxiety and wellbeing levels is important. In particular, finding ways to assist children to manage their anxiety symptoms may improve their general wellbeing and QOL, as well as reduce the risk of further functional impairment in adolescence and adulthood.
This study is designed to implement and evaluate the treatment of Emotional Freedom Techniques (EFT), as a class approach, for assisting students in managing their emotional states.

2.6 Summary of Chapter

This chapter has described processes that were undertaken for the systematic identification of literature in the areas related to childhood wellbeing and anxiety. The chapter further explored the nature of health and wellbeing within the dualistic, biopsychosocial, and biopsychosocial-spiritual models. Wellbeing, for this thesis, has been introduced in this chapter as related to holism and the theory of assemblage. The chapter has further explained some established links between wellbeing and quality of life. The impact of anxiety on children’s wellbeing described in Chapter 1 has been further addressed in this chapter. The following chapter focuses on the wellbeing of children within the domain of education, with particular focus on national policy and curriculum statements.
CHAPTER 3
CHILDREN’S WELLBEING AND THE ROLE OF EDUCATION

Historically, in schools, the wellbeing of students was incorporated in health studies in school curricula. Beyond this focus, the term student welfare generally referred to the more problem-focused aspects of student behaviour and performance (Butler, 2017). Specialist welfare staff, who were charged with addressing problem aspects of students and classes, were provided within education systems. The current notion of wellbeing expands this historic focus beyond student health and welfare, and embraces the whole person, which is inclusive of physical, mental, social, and emotional aspects and interrelationships.

The wellbeing of children has come to the forefront of research and policy since the establishment of the United Nations Convention on the Rights of the Child (UNCRC) treaty in 1989. General consensus has been reached across the globe about the rights expressed in the UNCRC, with children’s wellbeing considered to be a guiding principle of the treaty (Kosher & Ben-Arieh, 2017). As a result of the UNCRC, policy makers in political, health, social, psychological, and educational domains in many countries have increased their focus towards improving the wellbeing of children (Ben-Arieh, 2005, 2008; Bracey, Quested, & Duda, 2011; Earls & Carlson, 2002; Fernandes, Mendes, & Teixeira, 2013; Kosher & Ben-Arieh, 2017; Martorano, Natali, De Neubourg, & Bradshaw, 2014).

This chapter outlines educational policy directions and programs that have emerged in Australian schools in response to the international focus on children’s wellbeing. In addition to the various approaches that have been adopted in schools, this chapter further presents energy psychology—specifically, Emotional Freedom Techniques (EFT)—as a proposed wellbeing intervention for students in primary schools.
3.1 Policy Directions for Schools

Australia, like other countries, has formulated policies on child wellbeing, and this focus has become a growing area of interest. The Alice Springs (Mparntwe) Education Declaration (Council of Australian Governments [COAG] Education Council, 2019) has recently, through ministerial agreement, revised the future directions for young Australians in schools. In acknowledging the vital role that schools play in promoting the intellectual, social, emotional, moral, spiritual, and aesthetic dimensions of young Australians, two goals have been set in the Alice Springs (Mparntwe) Declaration:

Goal 1: The Australian education system promotes excellence and equity; and

Goal 2: All young Australians become confident and creative individuals, successful lifelong learners, and active and informed members of the community

(COAG Education Council, 2019, pp. 5-6)

Furthermore, the Declaration commits to the provision of the opportunity for all young Australians “to reach their full potential” (COAG Education Council, 2019, p. 5). Dimensions of student wellbeing are articulated as objectives for achieving the goal of young Australians becoming confident and creative individuals. Specifically, some of these dimensions are: resilience; an ability to manage wellbeing emotionally, mentally, spiritually, and physically; empathy and respect for other people; developing a sense of optimism and use of initiative; developing creative talents and skills to be enterprising; and developing knowledge, skills, and values for establishing healthy and satisfying lives. Particular skills identified for meeting these objectives have been set out in the Australian Curriculum within the Personal and Social Capability Learning Continuum of the General Capabilities dimension (Australian Curriculum, Assessment and Reporting Authority, n.d.). Schools in
all state and territory jurisdictions across Australia must provide students with experiences, knowledge, and techniques that can meet the developmental stages established in the continuum, in accordance with the national curriculum.

3.2 Wellbeing Programs and Interventions

Over the past two decades, wellbeing programs in schools have included approaches based on cognitive behaviour and positive psychology models, and more recently, mindfulness, meditation, and emotional intelligence approaches. The following sections of this chapter describe each of these approaches. In addition to these approaches, children’s wellbeing may be further assisted by schools implementing EFT in classes, and the latter part of this chapter focuses on the research and applications of EFT.

3.2.1 Cognitive behavioural approaches

From the commencement of the 21st century, cognitive-behavioural therapy (CBT) has become the accepted and most widely used treatment for a range of mental health conditions, including childhood and adolescent anxiety (Mychailyszyn, Brodman, Read, & Kendall, 2012; Schoenfeld & Mathur, 2009; Wood, 2006). As an amalgam of cognitive theories and behavioural theories, CBT approaches emphasise the interrelationship between thoughts and behaviours. Treatments are designed to challenge maladaptive learning and thinking, and teach strategies for managing unhelpful thoughts and beliefs to modify behaviours and interactions (Ollendick & King, 1998; Seligman & Ollendick, 2011).

Studies in several countries, including Australia, have shown positive effects of CBT programs in schools (Barrett, Farrell, Ollendick, & Dadds, 2006; Chiu et al., 2013; Moharreri & Yazdi, 2017; Mychailyszyn et al., 2012). The CBT-based program, Friends, developed in Australia by Professor Paula Barrett, targets anxiety and depression in children aged 8-12.
years (Barrett et al., 2006), and has been recognised by the WHO (2004) as an effective program for building resilience and cognitive skills necessary for reducing the risk of anxiety disorders (Zwaanswijk & Kösters, 2015). A longitudinal evaluation of the *Friends* program, which investigated long term effects of the program for the reduction of anxiety and depression among Australian Grade 6 and Grade 9 students found that, compared to students in a control condition, Grade 6 students’ anxiety scores on self-reported measures were lower at 12-month and 24-month follow-up periods (Barrett et al., 2006). The study further found that the program was more beneficial for Grade 6 students than Grade 9 students, suggesting that Grade 6 may be the optimal grade for anxiety and depression preventative programs. Variations of the *Friends* program, along with other CBT-based programs, such as *MindMatters* and *Coping Koala*, have been implemented in some schools across Australia.

A recent review of 111 studies regarding the efficacy of treatments for child and adolescent anxiety showed the strongest support for protocols consistent with CBT and exposure-based approaches (Higa-McMillan, Francis, Rith-Najarian, & Chorpita, 2016). Exposure treatment involves systematic confrontation of the stimulus that is feared, with the goal of reducing the degree of fear over increased periods of exposure (Kaplan & Tolin, 2011). From 17 treatment families that were identified for anxiety and avoidance, six were found to be well-established treatments and eight others were found to be probably efficacious treatments. From the probably efficacious group, three treatment families, namely attention control, cultural storytelling, and hypnosis, were not predominately CBT-based, which led the researchers to suggest these alternative treatments may be promising, and warranted further investigation. Even though a large number of studies (111) were included in the review, the limitation on true effectiveness was noted, given that the availability of effectiveness trials was considered to be in its infancy (Higa-McMillan et al., 2016). Results of this review may have been affected by treatment protocols implemented at
different periods of time, with the majority of the studies—nearly 80%—published between 1967 and 2006 and the remaining studies published between 2007 and 2011. Furthermore, studies included only randomised trials conducted with children and adolescents who were diagnosed with anxiety, avoidance problems, or both, that reported positive outcomes. The review outcome therefore, may have inherently favoured CBT, given the majority of studies on treatments for childhood anxiety has focused on CBT, having been the treatment of choice for child anxiety (Bennett et al., 2013).

Despite being found to be moderately effective in reducing anxiety in young people (Mychailyszyn et al., 2012), CBT has also been found to be less effective in children than in adults (Field, Cartwright-Hatton, Reynolds, & Creswell, 2008). This finding could be ascribed to some of the cognitive concepts and processes, such as skills training and application, involved in CBT programs being developmentally inaccessible to some children. According to Piaget’s (1954) stages of cognitive development, children under the age of 12 years have not developed cognitively to the formal operational stage where they can begin to think abstractly and use reasoning and logic as part of their mental operations. Based on this theory, effective engagement in CBT processes is less likely for children who are in the pre-operational stages of development. A study investigating the relationship between childhood anxiety and cognitive emotion regulation strategies and daily hassles also found that adaptive cognitive strategies are not readily used by children aged 9-12 when they encounter stressful situations (Chan et al., 2016).

Further to this finding, differences in developmental stages have been identified with regard to worry. In particular, research has found that anxiety or worry in adults is primarily a verbal thought process, but in children aged 7-12, worry is more strongly associated with fear than with thinking (Carr & Szabó, 2015). As children age, they develop a more adult manner of worry, although the age or stage that this change occurs is unknown (Carr &
Szabó, 2015). Cognitive programs, such as CBT, may therefore, not be suited to some children who have not attained the formal operational stage of cognitive development proposed by Piaget (1954) and have not developed an adult, verbal thought style of worry. Given the developmental differences of children, cognitive-based strategies for managing emotional responses are not comparable across age groups and must be tailored to the cognitive developmental stage of the individual (Chan et al., 2016).

A recent school-based system review and meta-analysis of prevention programs for depression and anxiety showed a small effect size for anxiety \( (g = .20) \) post-program intervention (Werner-Seidler, Perry, Calear, Newby, & Christensen, 2017). Of the 81 studies included in the meta-analysis, 20 were Australian school programs, all of which were CBT-based. Of the remaining programs in the study, only seven used other techniques, such as mindfulness, social skills, and interpersonal psychotherapy. The researchers noted the effect sizes for prevention techniques are likely to be smaller than for intervention techniques for anxiety disorders, given that individuals conceivably have lower baseline levels of symptoms or impairment at pre-program intervention. In this review, the age of students did not significantly affect the impact of the intervention.

CBT strategies include a focus on strengthening positive and helpful thinking, while attempting to weaken or change negative and unhelpful thinking. Extending this concept, students can improve their positive thinking and self-confidence when they embrace their strengths and uniqueness (Hodges & Clifton, 2004). Approaches that focus on individual strengths have emerged within the branch of positive psychology, and many interventions for childhood anxiety now include strengths-based approaches.
3.2.2 Positive psychology and strengths-based approaches

Positive psychology theory opposes the traditional pathological models of mental health. Rather than focusing on faulty thinking and feelings, or on learning difficulties, positive psychology emphasises the strengths and unique characteristics of individuals to promote their wellbeing and maximize their potential (Graham, 2011; Terjesen, Jacofsky, Froh, & Digiuseppe, 2004). Martin Seligman is regarded as the founder of the positive psychology movement. His wellbeing theory evolved from the theory of helplessness, in which he proposed that perceived absence of control was partly responsible for mental illness (Seligman, 2011). Moving to positive approaches, Seligman proposed that wellbeing consists of five elements: positive emotion, engagement, relationships, meaning and purpose, and accomplishment.

Positive psychology theory is aligned with developing the whole person (Waters, 2011) and building on individuals’ strengths in order for them to flourish (Lopez & Louis, 2009). Strengths-based research and practice has been advanced by educational psychologist, Donald Clifton, who was motivated by the question: “What would happen if we studied what is right with people?” (Louis, 2012, p. 3). This question presented a contrast to the traditional psychological approaches, such as CBT, that have been more focused on remedial approaches and repairing weaknesses and deficits of individuals. Clifton’s research led to the development of the Clifton StrengthsFinder, now known as CliftonStrengths, assessment tool, and this instrument has been widely used by researchers and organisations to measure the strengths of individuals and teams (Hodges & Harter, 2005; Rath & Conchie, 2008). A study conducted by the Gallup Organization using this instrument found that around 60% of adults, who were surveyed through email invitation, felt they could form better choices in life, could be more productive, and could feel more self-confident, when they became more aware of their strengths (Hodges & Clifton, 2004).
Strengths-based research has been conducted mostly within organisational contexts (Biswas-Diener, Kashdan, & Minhas, 2011), although some studies have focused on school settings. A study conducted by Gallup found that, in a group of 807 high school students, absenteeism and tardiness were reduced—3.8 days per student and .78 fewer tardy occasions per student, respectively—while grade point average improved by .15, compared with the control group, following the implementation of strengths-based approaches (Hodges & Clifton, 2004). In a further study, Gillum (2005) found that under-performing first year high school students improved the quality of their effort when they received strengths instruction. The students also expressed a desire to use their strengths both in and beyond school, where they had received specific instruction on how to use their strengths. Strengths-based curricula in college and university schools have also been associated with students utilising social supports, experiencing success, and building on their strengths by applying them to new situations (Bowers & Lopez, 2010).

Additional studies conducted in educational and other settings have found positive effects when individuals are exposed to strengths-based training, with the result that, over recent years, strengths-based education and positive psychology interventions have gained prominence and become attractive approaches for practitioners (Biswas-Diener, Kashdan, & Minhas, 2011; Louis, 2012). Despite apparent support for these approaches, a review of 12 school-based programs found that positive psychology interventions were implemented as isolated cases or were only included in pastoral care classes (Waters, 2011). Furthermore, researchers found that the positive psychology interventions used by practitioners were simplistic and rudimentary, focusing on the identification of individuals’ strengths and applying them to situations with greater frequency, as opposed to developing individuals’ strengths within the nuances and contexts of their lives (Biswas-Diener et al., 2011). The use
of positive psychology interventions was also most likely dependent on individual teachers who had developed an interest for these interventions (Long, 2003).

The review by Waters (2011) evaluated different school-based programs that were gathered from international studies based on positive psychology interventions. The various programs focused on developing gratitude, hope, serenity, resilience, or character strengths. Overall, a significant relationship was found between positive psychology interventions and both student wellbeing and academic performance. One reason noted for the programs’ success was that implementation was executed by the school teachers who had already established relationships with students. With the formed relationships, ongoing reinforcement of the programs’ concepts could more easily occur at various times of the school day and also beyond the program completion.

Similar to CBT, positive psychology and strengths-based interventions require cognitive engagement. Some dimensions of children’s wellbeing, however, require interventions other than cognitive techniques, given that worry is more strongly related to fear than thinking in children (Carr & Szabó, 2015), and the reasons for anxiety and other distressing symptoms are not always known by individuals. Conceivably, programs and interventions that are complementary to cognitive approaches are likely to be more effective than single-focused programs. Over the latter half of the 20th century, mindfulness and meditation programs have surged in popularity in Western countries (Creswell, 2017). These approaches use alternative mechanisms to cognitive-based processes for reducing anxiety and improving wellbeing, and they have become useful additions to some wellbeing programs in schools.
3.2.3 Mindfulness and meditation approaches

Meditation is rooted in Eastern contemplative traditions (Shapiro, Carlson, Astin, & Freedman, 2006), often associated with religious customs. The aim of all meditation techniques is to settle the wandering mind (Shapiro, 1982); however, different forms of meditation, which include mindfulness, use various techniques for directing and settling the mind. In mindfulness meditation practice, an individual brings increased awareness to the present moment by focusing on either internal states or external objects and events (Kabat-Zinn, 1994; Waters, Barsky, Ridd, & Allen, 2015). Through performing this practice, individuals shift to a state of greater detachment from internal dialogue, which is often inclusive of worrying or anxious thoughts.

Reviews and meta-analyses on meditation techniques have consistently shown improvements in mental and physical health conditions and improved capacity to regulate emotions (Baer, 2003; Grossman, Niemann, Schmidt, & Walach, 2004; Hart, Ivtzan, & Hart, 2013; Sedlmeier et al., 2012; Waters et al., 2015). Despite reported gains from meditation practice, few studies have been conducted on the use of meditation techniques with children, and only some of these studies have investigated meditation in school contexts (Campion & Rocco, 2009; Kuyken et al., 2013). One systematic review conducted on school meditation programs evaluated 15 studies, of which only two were Australian-based mindfulness studies, with regard to wellbeing, social competence, and academic achievement of students (Waters et al., 2015). More significant effects were related to programs of transcendental meditation—involving repetition of a mantra—than other meditation programs, including mindfulness. The review showed improvements in both emotional regulation and wellbeing, with 61% of results showing significance. Despite this level of significance, the majority of effect sizes were small, and one third of effect sizes were medium or strong. Age-related benefits for emotional regulation showed that middle school students (aged 10-13 years)
benefitted more than high school students (aged 13 years and above). Within the review, nine studies specifically investigated how meditation affects wellbeing. From the 17 results obtained from these studies, 59% showed a significant positive association ($d = .02 - d = .62$). The reviewers further noted that particular settings and program delivery may explain the differences found in outcomes between the mindfulness and transcendental meditation programs, rather than the different approaches involved in the techniques.

The results found in the systematic review by Waters et al. (2015) are consistent with a feasibility study conducted in the United Kingdom, that found a 9-week mindfulness program implemented in 12 secondary schools ($n = 522$; ages 12-16) decreased depressive and stress symptoms and improved wellbeing (Kuyken et al., 2013). Furthermore, a study conducted in Victorian schools recorded Year 5-6 student perceptions of meditation practices after 22 half-hour weekly sessions. Comparing pre- and post-meditation states, students noticed that their minds were calmer, their anxieties and physical symptoms became less noticeable, they felt better, and they felt they could cope better after the meditation sessions (Smith, 2015).

Research on meditation has been conducted since the 1950s, yet the neurophysiological mechanisms that underlie the positive outcomes experienced in meditation are still not well understood (Lutz, Dunne, & Davidson, 2007). Some electroencephalography and functional magnetic resonance imaging (fMRI) studies in adults have shown that meditation affects neurological structures of the brain that are believed to contribute to the regulation of emotion and stress (Holzel et al., 2011; Lazar et al., 2000; Mishra, Khosa, Singh, Moheb, & Trikamji, 2017). Despite limited understanding of the internal processes involved in the practice of meditation, the positive outcomes reported with students indicate that meditation is a useful addition to CBT and positive psychology programs in schools. Furthermore, because mindfulness has been linked to increased
emotional intelligence in university students (Schutte & Malouff, 2011) and high school students (Rodríguez-Ledo, Orejudo, Cardoso, Balaguer, & Zarza-Alzugaray, 2018), as well as improvements in wellbeing and social and emotional competence in primary school students (Schonert-Reichl et al., 2015), meditation and mindfulness practices could support the current national educational goal for schools to enhance social and emotional intelligence and to nurture wellbeing in students (COAG Education Council, 2019).

3.2.4 Emotional intelligence and social and emotional learning

The concept of emotional intelligence as a psychological theory was proposed by psychologists, Mayer and Salovey in 1990 (Salovey & Mayer, 1990; Salovey & Pizarro, 2003). They devised a four-branch model of emotional intelligence that consisted of perceiving emotions, using emotions to facilitate thought, understanding emotions, and managing emotions (Mayer, Salovey, & Caruso, 2004, 2008; Salovey & Pizarro, 2003). Mayor and Salovey’s work was extended by Daniel Goleman who popularised the term emotional intelligence with the publication of his book Emotional Intelligence: Why it can matter more than IQ (Goleman, 1995). Goleman suggested that a person who has a higher level of emotional intelligence is likely to be more successful in relationships, performance, and careers, and be less prone to social and mental health problems than an individual with a low level of emotional intelligence (Goleman, 1995). This concept may be viewed compatible with elements of Maslow’s extended version of hierarchy of needs theory (Maslow, 1987) that suggests that emotional—belonging, self-esteem—and social needs must be met before cognitive needs can be fulfilled (Passer & Smith, 2009). Haim Ginott, child psychologist of the 1960s and 1970s (Yates & Holloman, 2013), expressed succinctly the link between emotion and cognition in children’s learning: “only if a child feels right can he think right” (Ginott, 1972, p. 81).
Goleman identified five aspects of emotional intelligence—self-awareness, self-regulation, motivation, empathy, and social skills. According to Goleman’s theory, emotionally intelligent individuals will have high levels in each of these components, with the likely outcome of improved academic performance and behaviour (Goleman, n.d.). To extend the research and practice on social and emotional learning (SEL) in education, Goleman established the Collaborative for Academic, Social and Emotional Learning at the University of Illinois which has become a leader in the promotion of personal and social learning in schools (Zins, Bloodworth, Weissberg, & Walberg, 2007). The Collaborative has provided a set of SEL competencies that has served as a framework for many programs in schools (Graczyk, Matjasko, Weissberg, Greenberg, Elias, & Zins, 2000).

A meta-analysis comprising 213 studies and 270,034 students that examined school-based SEL programs found that these programs significantly enhanced social-emotional competencies and enhanced student attitudes related to self and others as well as school (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). In this study, the largest effect ($M = .69$) was found for social-emotional skill performance. Compared with students who did not participate in SEL programs, students in SEL programs also showed improved classroom behaviour, an increased ability to manage stress and depression, and better attitudes about themselves, others, and school. Furthermore, an 11-percentile point improvement in academic achievement was found in students in SEL programs compared with students who did not participate in these programs.

The current educational curriculum set by the Australian Curriculum, Assessment and Reporting Authority for supporting social and emotional learning for students is presented in the Personal and Social Capabilities Learning Continuum. The continuum comprises four interrelated elements which closely resemble the components proposed by Goleman in his model of emotional intelligence. The four elements, with Goleman’s corresponding
components in parentheses, are self-awareness (self-awareness), self-management (self-regulation), social awareness (social skills), and social management (social skills). This model, illustrated in Figure 3.1, is the basis for the SEL paradigm and related programs in Australian schools. The additional components of motivation and empathy presented in Goleman’s model may be considered to be incorporated in the various elements of the Personal and Social Capabilities Learning Continuum model.

![Diagram of Personal and Social Capability](image)

*Figure 3.1. Elements of Personal and Social Capability, adapted from Personal and Social Capability, (ACARA, n.d.)*

In response to the national curriculum and the emphasis on SEL in schools, the Northern Territory Department of Education (NTDoE) has introduced a Social and Emotional Learning Implementation Guide for Schools (NTDoE, 2019). This Guide provides the framework and resources for teachers to use across all year levels in support of students’ social and emotional wellbeing. Currently in schools, the programs that support social and emotional learning and the Personal and Social Capabilities Learning Continuum may
incorporate a range of practices that are drawn from wellbeing models that incorporate CBT, positive psychology, and meditation and mindfulness approaches.

Further enhancement of SEL programs that support the Continuum may be attained through the inclusion of meridian-based techniques, which have been found to improve wellbeing states of individuals across a range of contexts and ages. The following section provides a comprehensive literature review of studies that have focused on meridian-based techniques, with a particular emphasis on Emotional Freedom Techniques (EFT) within the overarching field of energy psychology. The current study extends this research to evaluate whether EFT may support SEL and the Personal and Social Capabilities Learning Continuum in primary schools.

3.3 Energy Psychology and Emotional Freedom Techniques

Energy Psychology refers to the set of treatment modalities that combine cognitive and exposure procedures with interventions based on the Chinese meridian system—an arrangement of internal pathways of the body, through which blood and energy (qi) flows (Gao, 1999). This branch of psychology derives its name from the theory that everything, including our actions, reactions, thoughts, and emotions, is underpinned by energy, and interacts with the body through an energetic system (Lambrou, Pratt, & Chevalier, 2003). In Western science, the notion that everything is energy was postulated by Albert Einstein in the 1900s and, although not observed in the traditional Western medical model, the concept is supported by modern day physics and technology (Gallo, 2007), and is the basis of many non-standard or complementary and alternative treatments in Western countries.
3.3.1 Background of energy psychology and Emotional Freedom Techniques

Various energy psychology (EP) protocols have evolved since the 1970s, with Emotional Freedom Techniques (EFT), or tapping, becoming the most widely used modality (Fox, 2013; Lane, 2009). EFT, along with other energy practices, such as acupuncture, utilises the meridian system that was mapped by the Chinese over two thousand years ago (Stanway, Sanders, & Appleton, 1979). According to traditional Chinese medicine (TCM), the body functions with a flow of energy, bioenergy, or qi (chi), that is channeled through 12 main meridians in the body (Leung, 1998; Stanway et al., 1979). Other cultures across the world, stemming from ancient times, have also adopted a similar belief about the body’s energy system: in Japan, the energy system is known as ki, and in India, prana. The bioenergy field is assumed to be different to the biochemical and molecular systems of the body, upon which most attention is focused in Western medicine (Kos, 2016). Rather, the bioenergy system features a rich interrelationship of the flow of energy through the body, incorporating all dimensions of an individual, such as cells, tissues and molecules, along with interactions within the body, such as physiological, behavioural, and ecological connections (Oschman, 2000).

Wholeness, according to Oschman (2000), cellular biologist, physiologist, and biophysicist, is the integration of all parts that enable the unit to work together successfully. From this perspective, wholeness may appear to be diminished when individual components do not function well together or are not well integrated and working together successfully. In this case, presumably, every individual exists in a state of reduced wholeness, given the imperfections that develop in all human systems. Alternatively, individuals may be deemed to be in a state of wholeness, irrespective of the imperfect functioning levels of their component parts and related interactions. Oschman’s description of wholeness, however, is less about the diminishment of individuals, and more about the body’s optimal performance,
which he emphasises is influenced by a broad range of aspects, relationships, and interactions. This notion of wholeness, or wholebeing, is central to TCM and the bioenergy model. Wholeness extends the mechanistic view of the human body found in contemporary Western medicine (Moerman, 2002), which focuses on individual body parts, and aligns more with the theory of assemblage described in the previous chapter of this thesis. According to TCM, disruptions or blockages in the bioenergy field reduce the flow of energy in the body, giving rise to physical and emotional discomfort and disease (Gallo, 2007).

Two notable scientists have presented theories that incorporate the notion that broad energy fields affect outcomes in animate objects. Harold Saxton Burr, an American professor of anatomy and researcher in bio-electrics, was a pioneer in the mid 20th century in showing the vital role that energy fields play in the regulation of the body’s structure and function (Oschman, 2000). Rupert Sheldrake, an English biochemist and plant physiologist, introduced, in 1981, the concept of formative causation, in which he proposed that structures of activity influence similar structures of activity beyond space and time, through a process he named morphic resonance (Swingle, Pulos, & Swingle, 2004). Within this concept, collective memories contribute to individual activity sets and influence physical form. In Western countries, scientific research continues to gather support for new ways of thinking about the human body and elements that influence wellbeing, which resemble TCM understandings. Nevertheless, significant scepticism has surrounded theories and research that fall outside the standard Western medical paradigm. For example, the field of acupuncture, based upon TCM insights, was viewed previously in the West with distrust and cynicism, yet in recent decades has gained greater recognition as a viable treatment in many Western countries, including Australia (Zheng, 2014).
3.3.2 The meridian system: Links between acupuncture and EFT

Research into acupuncture and the meridian system has been accumulating since the 1960s (Meng, Xu, & Lao, 2011; Zhang, Wang, & Fuxe, 2015). Given that EP techniques use the same meridian points, or acupoints, as those used in acupuncture, research into acupuncture may be considered to be the foundation for research for EP practices. In differentiating the two forms of treatments, acupuncture uses fine needles to stimulate acupoints, whereas EP techniques use finger pressure, known as acupressure, to stimulate the acupoints. Despite the similarities between acupuncture and EP techniques, scepticism continues to be projected towards EP practices, while acupuncture has become more widely accepted as a wellbeing treatment (Zheng, 2014).

Acupuncture research has produced support for the existence of meridians and meridian points (Ahn et al., 2008), through the detection of higher electrical conductivity of the skin at identified acupoints (Hong et al., 2007) as well as beneficial effects that are obtained after needles are inserted into acupoints (Cherkin et al., 2009; Napadow, Webb, Pearson, & Hammerschlag, 2006; Yang, Cai, & Wu, 1989). However, studies showing the benefits obtained from inserting needles into identified acupoints compared with inserting needles into alternative points on the body—sham points, or applying pressure to points, have produced mixed results. Whereas some studies have found greater effectiveness when identified acupoints were used compared with sham points (Hershman et al., 2018; Sokunbi, Maduagwu, Jaiyeola, Gambo, & Blasu, 2016), a systematic review of 66 studies ($n = 7,265$) found that acupressure applied to non-acupoints was also beneficial in managing a range of health conditions, although there was a stronger effect found with the true acupressure groups (Tan, Suen, Wang, & Molassiotis, 2015). Other studies have found negligible difference between the effects produced by standard acupuncture treatment, that is, needling acupoints determined by an acupuncturist for a particular ailment, and superficial needling, or
electronic or manual stimulation of points, such as acupressure (Assefi et al., 2005; Cao, Li, Han, & Liu, 2013; Cherkin et al., 2009; Goddard, Karibe, McNeill, & Villafuerte, 2002; Lane, 2009; MacPherson et al., 2008; Moffet, 2009; Yeh et al., 2012), suggesting that understandings gained from acupuncture studies may also apply to acupressure techniques, such as EFT.

The question about differences in results produced by acupuncture and acupressure techniques was raised by George Goodheart, an American chiropractor in the 1960s (Gin & Green, 1997). Goodheart observed that the physical pain of his patients reduced after applying pressure on identified acupoints. Extending this approach, Australian psychiatrist, John Diamond, one of Goodheart’s students, applied the acupressure techniques, along with accompanying statements of affirmation, for the emotional pain of patients. Another student of Goodheart, American psychologist, Roger Callahan, introduced thought field therapy (TFT)—the immediate predecessor of EFT—in the late 1970s for the reduction of psychological and emotional distress (Callahan & Callahan, 2011). TFT involves tapping on acupoints in specific sequences to address the particular discomfort or distress.

EFT, as a treatment modality, was established by a student of Roger Callahan, Gary Craig, in the 1980s (Craig, 2008). A Stanford-trained engineer, Craig proceeded to streamline Callahan’s TFT treatment, producing a universal protocol that could be used for all physical and emotional discomfort. Unlike TFT, knowledge about specific sequences is not required to implement the EFT protocol. Instead, several acupoints representing different meridians, are combined in a single protocol that can be used for a range of conditions, thereby simplifying the TFT tapping treatment. In applying EFT, cognitive focus is directed to the problem whilst tapping on the acupoints. To assist in maintaining focus, a statement about the problem is articulated, followed by a positive self-acceptance statement (Appendix B, part (a) provides the statement used in this study). The technique is uncomplicated and
can be readily learnt and self-administered by individuals, or can be applied clinically during psychotherapy sessions. When the EFT protocol is used, an individual’s discomfort or distress may dissipate, enhancing relaxation and wellbeing. Because EFT involves both cognitive procedures and meridian stimulation, conscious as well as unconscious aspects of a problem may be included in regulating the body’s response (Church, 2013).

3.3.3 Studies on EFT

Research is mounting regarding the efficacy of EFT (Church, Stapleton, Yang, & Gallo, 2018; Clond, 2016; Feinstein, 2012, 2019; Gilomen & Lee, 2015). To date, as reported by the Association for Comprehensive Energy Psychology (ACEP), over 100 research studies have been conducted in several countries on the efficacy of EFT across a range of physical and psychological conditions. Studies have also explored the mechanisms by which EFT produces effects. In addition, as of July, 2019, five meta-analyses and 12 review articles about EP techniques have been published in peer-reviewed journals (ACEP, 2019).

In a meta-review conducted by Feinstein (2012), 51 peer-reviewed papers on EP showed positive results for people who exhibited post-traumatic stress disorder (PTSD), specific phobias, public speaking and test-taking anxieties, depression, generalized anxiety, pain and physical illness, weight control, and athletic performance (Feinstein, 2012). Of the 18 random control trials (RCTs) included in this meta-review, nine used an active ingredient comparison treatment or a placebo, and nine used a wait-list control group as a comparison to the experimental EP treatment. Large effect sizes were shown for the studies, suggesting that acupoint stimulation produces positive clinical outcomes across a range of conditions. Feinstein’s analysis found that EP techniques produce clinical outcomes with “extraordinary speed” (Feinstein, 2012, p. 364). In a meta-analysis that assessed 14 RCTs (n = 658) which
met the criteria for empirically validated treatments developed by the American Psychological Association’s Division 12 Task Force, Clond (2016) found that EFT produced a significant decrease in anxiety scores, with large treatment effect size ($d = 1.23, p < .001$) compared with control groups of adults and children ($d = .41, p = .001$).

Although most of the research in EFT has involved an adult population, some researchers have investigated the effect of EFT on younger individuals and student groups. A study on test anxiety conducted by Benor, Ledger, Toussaint, Hett and Zaccaro (2009) found that EFT, in just two sessions, significantly reduced psychological distress among Canadian university students with moderate or severe test anxiety, compared with CBT treatment, which reduced test anxiety in five sessions. Qualitative responses from participants further supported the positive quantitative outcomes, with students reporting their willingness to use EFT for stress reduction in other aspects of their lives.

A narrative systematic review on the effectiveness of EFT conducted by Boath, Stewart, and Carryer (2012) identified seven RCTs, some of which included student samples. Comparisons and meta-analysis were deemed not possible in this study because outcome measures were varied in the assessment of the conditions examined in each of the RCTs. Nevertheless, the researchers found that EFT significantly reduced test anxiety in high school students, improved athletic performance in college students, and diminished symptoms of PTSD, phobias, and fibromyalgia in adult groups. Included in the review was a school-based RCT by Sezgin and Ozcan (2009) that investigated the effect of EFT on test anxiety in 312 high school students who attended a private academy. The study compared a group of students who were instructed in EFT and another group who received instruction in progressive muscular relaxation. Both groups of students were instructed to use their respective techniques 3 times a week over a 2-week period. Retesting at the end of a 2-month period showed that emotionality and worry in both student groups reduced, especially
after EFT. Pre-treatment and follow-up mean differences in the reduction of student scores on the measurement scales were 20 for EFT and 11.4 for progressive muscular relaxation ($p < .05$).

A pilot study conducted by Gaesser and Karan (2017) investigated the effects of EFT and cognitive behavioural therapy (CBT) on anxiety in high-ability students ($n = 63$) in middle and high schools—Grades 6-12. To compare the two interventions, students who scored in the moderate to high anxiety level on the Revised Children’s Manifest Anxiety Scale-2 (RCMAS-2) were allocated to an EFT, CBT, or a waitlist control group. Graduate students of psychology, social work, or counselling administered the intervention to students individually, according to their respective protocol groups. The intervention consisted of three sessions, with sessions generally 1 to 2 weeks apart. The researchers found that students in both the EFT and CBT protocol groups experienced a reduction in anxiety, however, only the EFT group showed a significant reduction in anxiety compared to the control group ($d = .74$).

In an Australian study (Stapleton et al., 2017), researchers investigated EFT as a universal intervention to diminish academic fear and failure in Year 10 high school students ($n = 204$) enrolled in advanced programs. Students were drawn from two schools for the study, with students in one school ($n = 80$) comprising the EFT group, and students from the other school ($n = 124$) acting as a no-treatment control group. The EFT sessions were 75 minutes duration in school time, conducted over 5 weeks at weekly intervals. The five sessions were conducted by qualified EFT practitioners—a clinical psychologist and a psychotherapist—and were planned prior to commencement of the EFT program, to ensure conformity to the session and the EFT protocol. For both groups, measurements on the four scales of self-esteem, resilience, strengths and difficulties, and performance failure were gathered pre- and post-intervention and at 12-month follow-up periods. Additional
measurements were gathered at the 6-month follow-up period for the intervention group. The most significant finding of this study was the reduction in fear of failure from pre-intervention to 12-month follow-up ($p = .020$) for the EFT group, suggesting that treatment gains may extend beyond the immediate treatment period. Furthermore, the researchers raised the possibility of changes not being detected statistically at the earlier post-intervention and the 3-month follow-up periods because of the limited scores on the performance failure measurement scale.

Despite the numerous studies that have shown efficacy of tapping, controversy and scepticism about the validity and efficacy of the techniques have been raised. Some health professionals and academics regard EFT as dangerous nonsense (Langford, 2014) or a pseudoscience that is “unlikely to be scientifically productive” (Bakker, 2013, p. 91). These sweeping claims appear to demonstrate a closed mindset towards the investigation of the intervention. Because curiosity is the hallmark of scientific investigation, a fixed opinion contradicts science and overlooks the possibility of new findings through scientific methods. Arguments presented by sceptics regarding legitimate claims for EFT’s efficacy include the bias of researchers, insufficient evidence of the positive effects of EFT, and failure to identify the mechanisms that uniquely produce any positive effects (Bakker, 2013; Langford, 2014).

In response to some of these claims, up until mid 2019, research on energy psychology techniques, of which EFT is the dominant method, has emerged from 12 countries; over 100 studies have been published in peer review journals; and more than 50 randomised control trials have corroborated the efficacy of the techniques (Association for Comprehensive Energy Psychology, 2019). All these studies are unlikely to have contained strong bias, particularly for some that have passed rigorous peer review processes. Often, new treatments and concepts are dismissed when they are not fully understood, and a translational gap—the period of time between a discovery and clinical application—are
common for new interventions (Morris, Wooding, & Grant, 2011). Over time, treatments may be understood more fully, and the mechanisms that produce effects may be identified.

To investigate whether the tapping element of EFT is an active ingredient in the positive effects reported by researchers, Church et al. (2018) conducted a systematic review and meta-analysis of studies. Other explanations for the positive effects of EFT are the result of placebo, novelty, or non-specific elements or components of the protocol that are common to other treatments, such as cognitive restructuring, distraction, exposure, or the expression of affirmations (Bakker, 2013). Three studies that met the criteria for empirically validated treatments published by the American Psychological Association Division 12 Task Force were included in the systematic review and meta-analysis. All three studies that comprised the meta-analysis compared EFT with other protocols, such as tapping on sham points or use of a breathing technique, thereby controlling for placebo effect. The meta-analysis found that the acupoint tapping—EFT—groups had stronger treatment effects than either the application of pressure to sham points on the body or the breathing protocols used with individuals in the control groups. The researchers therefore concluded that tapping is an active ingredient in the EFT protocol and that the positive effects are not solely a result of components of the protocol that are common to other treatments (Church et al., 2018).

Although several studies have supported the positive effects produced by EFT, the mechanisms by which these effects are produced are not fully understood (Feinstein, 2019). EFT research may still be considered to be emerging; however, studies have been accumulating substantially, not only on efficacy, but also on the physiological changes and mechanisms of action involved in producing change in individuals.
3.3.4 Physiological changes and mechanisms involved in EFT

Tapping on the body is not a modern concept. The technique has been used for centuries in techniques such as chi gung and shiatsu (Mayor & Micozzi, 2011). Some theories have been applied to EFT’s efficacy, such as the principal findings of Gallo (2007) of energy psychology, suggesting that a psychological problem is indicative of a disruption in the body’s energy system, and that when the body’s energy system is returned to balance, the problem will be resolved.

These understandings are aligned with TCM, which assumes that physical and emotional discomfort and disease are caused by a reduced flow of energy in the body as a result of disruptions or blockages in the bioenergy field. When blockages in the bioenergy field occur, an individual may experience emotional conditions such as anxiety, fear, and stress (Swingle et al., 2004) that manifest as physiological symptoms. When the blockages are cleared, the problems are alleviated and health is restored. This theory has been presented as the foundation for understanding the processes involved in EFT (Craig, 2008).

A growing body of research over the past couple of decades has used scientific approaches for understanding the mechanisms involved in the physical changes produced in the body after EFT treatments. EFT is believed to work in a similar way to some other treatment modalities, such as acupuncture and reflexology (Mountrose & Mountrose, 2006; Waite & Holder, 2003), which act on clearing energy blockages in the body (Seem, 1993). Understandings from these modalities may, therefore, provide further insights into the mechanisms involved in EFT.

Further investigations for the efficacy reported by individuals about EFT and other EP techniques involve physiological findings and explanations. In 2001, Swingle presented neurophysiological evidence showing the positive effects of EFT (Swingle, 2008). He found that, after tapping, there was an increase (13-15 Hz) in the amplitude of the sensory motor
rhythm—the brainwave activity over the sensory motor cortex. This finding was important, given that an increase in sensory motor rhythm amplitude is the treatment goal of neurotherapy for epilepsy (Swingle et al., 2004). Additional to this study, Swingle et al. (2004) conducted brainwave assessments before and after EFT treatments with clients who experienced moderate to severe trauma from a motor vehicle accident in the previous 12 months. The electroencephalographic assessments showed that, compared to four clients who did not report improvements, the five clients who self-reported sustained improvement from the EFT treatment showed changes in brainwave activity across three measures. Apart from the increase of sensory motor rhythm amplitude over the sensory motor cortex, clients showed a significant increase in theta/beta ratio changes (3-7 Hz / 16-25 Hz) in the occipital region, indicative of mental quieting and stress reduction. Further, compared to the first brain assessment conducted, the second assessment showed a significant percentage increase in arousal of the left frontal lobe relative to the right frontal lobe. This finding is indicative of a less depressed state because the greater arousal of the right frontal lobe is associated with depressive mood states (Swingle et al., 2004).

Lambrou and colleagues (2003) used physiological, along with psychological and behavioural, measures to assess claustrophobic individuals before and after 30 minutes intervention of acupressure. These measures were compared with non-claustrophobic individuals who underwent 30 minutes listening to music. The electroencephalographic assessments showed that the theta wave activity of phobic individuals was more similar to non-phobic individuals after 30 minutes of acupressure compared to the pre-treatment measures. In addition, the electromyography assessments showed changes in the trapezius, or shoulder, muscles for the phobic group, whose measures post-treatment approached normal levels, compared with the non-phobic group whose levels remained unchanged. Furthermore, a significant increase in Before Polaraisation—a measurement on the apparatus
for meridian identification that was used—was noted for phobic compared with non-phobic individuals, and this increase is reported to be associated with greater relaxation (Lambrou et al., 2003).

In his review paper exploring the neurochemistry of counterconditioning associated with acupressure, Lane (2009) suggested that energy psychology therapies produce a biochemical relaxation response associated with the parasympathetic nervous system. This response counters the anxiety-producing stimuli that triggers the sympathetic nervous system and the fight-flight-freeze response. Over the past couple of decades, studies have investigated the physiological mechanisms by which the stimulation of acupoints may result in counterconditioning and therapeutic positive effects, with suggestion of activity involving the central nervous system (Dhond, Kettner, & Napadow, 2007; Fang et al., 2009; Yoo, Teh, Blinder, & Jolesz, 2004). Researchers have found, through fMRI, that the limbic system is implicated in producing effects (Fang et al., 2009), and have posited that acupuncture treatment activates an analgesic response in the body (Dhond et al., 2007; Yang et al., 1989).

Harvard Medical School has conducted extensive research over a 10-year period on the neurological effects of acupoint stimulation (Fang et al., 2009; Hui et al., 2005; Hui, Marina, Liu, Rosen, & Kwong, 2010; Napadow et al., 2009; Napadow et al., 2007). Findings from mapping the brain’s activity through fMRI and positron emission tomography have consistently revealed that, after needling or electronic stimulation of acupoints, extensive decreases were observed in brain activation in areas of the limbic system, particularly the amygdala, the area associated with the sympathetic nervous system and stress responses (Church et al., 2018; Dhond et al., 2007; Fang et al., 2009; Hui et al., 2005).

In a randomised controlled trial, Church, Yount and Brooks (2012) examined changes in cortisol levels as well as symptoms of psychological distress of 83 non-clinical individuals following a 1-hour intervention. Because cortisol is a biomarker for stress, the assessment of
cortisol produced by the body can reveal the relative stress level of an individual. In this study, cortisol levels were measured via saliva assays before and after the interventions. The results of the EFT group \( (n = 28) \) were compared with individuals who engaged in 1 hour of psychotherapy \( (n = 28) \), which was a supportive interview, and a group of individuals who engaged in no treatment at all \( (n = 27) \). Participants who received the EFT treatment showed a significant decrease in cortisol levels \( (M = -24.39\%, S = 2.62) \) along with a decrease in psychological distress symptoms, compared with the supportive interview group \( (M = -14.25\%, SE = 2.51) \) and the no treatment group \( (M = 14.44\%, SE = 2.67, p < .03) \), suggesting that EFT is efficacious for the treatment of stress and anxiety. In contrast, a study by Bougea and colleagues (2013) failed to find a significant difference in salivary cortisol levels between patients experiencing tension-type headaches, who performed EFT twice a day over 8 weeks, and the control group of patients who continued with standard care. In this study, EFT was performed twice a day, morning and evening by the intervention group. Despite the absence of changes in cortisol levels, the EFT intervention was found to reduce the frequency \( (p < .001) \) and severity \( (p < .0001) \) of headaches, along with other stress symptoms, and patients recorded lower levels on the psychological stress scale measures, indicating improved quality of life.

More recently, in an Australian study, fMRI assessments of patients with food cravings showed increased activation in the left cortical regions of the brain when patients were exposed to food images. After a 4-week EFT treatment of 2 hours per week, the left cortical brain activity was reduced in the EFT treatment group, whereas the no-treatment control group remained the same (Stapleton et al., 2019).

Considering the increased support for EFT as an effective yet simple intervention, many more people may benefit if the techniques were more widely understood and accepted. Researchers have recognised that treatment acceptability is an important indicator of
effectiveness (Higa-McMillan et al., 2016). Given that positive outcomes have been reported when EFT is applied in group contexts (Boath et al., 2017; Jain & Rubino, 2012; Stapleton et al., 2017) as well as individually (Benor, Rossiter-Thornton, & Toussaint, 2017; Bougea et al., 2013; Gaesser, 2014; Wells, Polglase, Andrews, Carrington, & Baker, 2003), and the positive effects that have been found with students (Boath, Stewart, & Carryer, 2013; Gaesser & Karan, 2017; Sezgin & Özcan, 2009; Stapleton et al., 2017), EFT may be beneficial when applied in primary school classes.

3.4 Applying EFT in Primary School Classes

EFT has been found to reduce distress symptoms in fewer treatments than CBT (Benor et al., 2009), and has also been found to be as efficacious as CBT when delivered in groups (Nemiro & Papworth, 2015). EFT may, therefore, be a more cost-effective intervention than CBT, which has been the treatment of choice for many mental health conditions over recent decades. Cost-effectiveness is an important consideration for schools, given limited budgets and program costs. Schools may benefit most if EFT is found to be efficacious when used with classes of students. If EFT is found to be effective for student wellbeing when used as a class technique, a greater number of students would benefit than an application of individual approaches. In addition, longer term benefits may be achieved for individual students who continue to use EFT beyond the class application.

Aside from cost-effectiveness, universal methods for assisting wellbeing—that is, methods that can be applied to groups—are often preferred by schools because of ease of implementation (Horowitz, Garber, Ciesla, Young, & Mufson, 2007) and the greater number of students who can be assisted with a whole class approach. In schools, wellbeing techniques that can be applied universally are especially favourable because all students can benefit regardless of diagnosed or identifiable states or behaviour. Universal techniques are
inclusive of all students and may improve the level of students’ wellbeing without diagnostic instruments. Universal methods also reduce stigma that may be attributed to individuals receiving treatment for particular problems (Gulliver, Griffiths, & Christensen, 2010).

Student activities are more likely to be accepted by individuals when coupled with peer support (Barrett et al., 2006). Techniques, such as EFT, that can be applied to student groups, will therefore be more readily accepted when the activity is perceived by students to be a normal class exercise for everyone. Furthermore, after learning the techniques in class, students can apply the methods for their personal use at any time, and they may feel better equipped for managing their wellbeing states.

Techniques that assist children to manage their wellbeing states may also act as preventative or reduction measures for anxiety and other mental health conditions (Barrett, Lock, & Farrell, 2005; Neil & Christensen, 2009; Stockings et al., 2016). A meta-analysis of 146 randomised controlled trials (n = 46,072 children) examined the efficacy of prevention interventions on depression and anxiety in young people, aged 5-18, who were grouped by varying levels of risk of developing these conditions (Stockings et al., 2016). The researchers concluded that prevention approaches reduced the onset of depression and anxiety disorders for up to 9 months after the interventions for all groups of children, and up to 12 months for the group with no identified risk. The researchers noted, however, that of all the studies included in the review, most (93) examined depression only, compared with 26 studies that addressed anxiety only, and 27 studies that addressed both disorders. Given that most studies were school-based and used CBT approaches, the number of studies addressing other interventions were not sufficient to determine levels of efficacy. Nevertheless, some physical interventions, that is, physical exercise activities, such as team sports, that were used with young people, were thought to be promising. Because wellbeing is multidimensional, and a diversity of students’ skills, backgrounds, and experiences is present in all classrooms, a
range of approaches that supports students’ social and emotional learning (SEL) and aligns with the Personal and Social Capabilities Learning Continuum of the curriculum is likely to best meet the needs of schools.

In the past, preventative interventions to improve the mental health of children aged 0-8 have primarily addressed behavioural issues, and only a few programs have specifically addressed emotional problems (Bayer et al., 2009). EFT may be an application that can complement the current programs, and equip students with skills to enhance self-awareness and self-management. Learning EFT can equip students with another strategy for managing their wellbeing states. For example, with EFT, children are able to specifically target their anxiety, enhancing their sense of agency and self-efficacy.

“Schools play a vital role in promoting the social and emotional development and wellbeing of young Australians” (Australian Government Department of Education and Training, 2020, para. 1). Teachers, therefore, require techniques and programs that can support them in providing opportunities for students to progress on the Personal and Social Capabilities Learning Continuum. Schools are limited in resources that may provide relief for students experiencing anxiety and other distressing symptoms. Often, these students are not identified, nor do teachers always know the degree to which these students may be affected.

Although student wellbeing has become a priority across educational systems, and SEL programs have been implemented in some schools across Australia, teachers, for many years, have had the pressure of managing the crowded curriculum (Davis, Cooke, Blashki, & Best, 2010; Trudgen & Lawn, 2011). Additionally, there are arguably stronger demands on schools to focus on core curricula than student wellbeing, evidenced by the emphasis placed on the National Assessment Program Literacy and Numeracy (NAPLAN)—the annual testing program in reading, writing, spelling, grammar, punctuation, and numeracy for students in
Years 3, 5, 7, and 9. Furthermore, teachers have been granted limited resources and training for addressing student wellbeing, such as the identification of emotional states and mental health conditions (Trudgen & Lawn, 2011), and have therefore not been able to respond to a range of individual student wellbeing needs (Butler, 2017; Trudgen & Lawn, 2011).

The deficit of teacher training in social and emotional programs also likely impedes students’ levels of maturing in the domains of self-awareness, self-management, social awareness, and social management (Graham, Phelps, Maddison, & Fitzgerald, 2011). Teachers can be assisted by learning wellbeing strategies that do not require identification of individual wellbeing states, and that can be taught to students and applied in the classroom. Furthermore, if students learn simple and accepted techniques for alleviating their anxiety and discomfort, they are more likely to choose to self-manage their emotional states. This outcome will be supportive of the national educational statements, noted previously, on the promotion of social and emotional development and wellbeing of students. Enhancement of student wellbeing states will likely reduce the risk of onset or worsening of social and emotional problems (Stockings et al., 2016).

3.5 Rationale for this Study

The need for early intervention and preventative programs and techniques for children is a priority (Dove & Costello, 2017; WHO, 2008) in order to avert the onset or progression of debilitating psychological conditions (Donovan & Spence, 2000). Given that mental illness accounts for the majority of illness and disability in young Australians aged 10 to 19, and around 50% of mental illness becomes evident in adolescence (Black Dog Institute, 2016), preventative measures will be most beneficial when applied in earlier years. Because the middle years of schooling in Australia (Years 7 - 9) have been identified as the highest risk period for students becoming disengaged from learning (COAG Education Council,
2019), wellbeing techniques that are provided to students in their primary years, supporting the Personal and Social Capability Learning Continuum curriculum may also help to protect them from disengagement in middle school.

In the Northern Territory (NT), Year 6 students are in their final year of primary school before progressing to middle school. Conceivably, some students moving between educational establishments may experience problems of adjustment, thereby increasing the possibility of disengagement, anxiety, or other mental health issues. Year 6 students will likely be better equipped to adjust to middle school if they have developed techniques to assist them in managing their levels of wellbeing prior to shifting between the primary and middle school establishments.

Considering that EFT has been shown to diminish anxiety and improve wellbeing, the techniques may be useful to include in SEL school-based programs, and may assist teachers to support students in the domains identified in the Personal and Social Capabilities Learning Continuum. Furthermore, if EFT can assist students in their levels of self-awareness and self-management, the intervention may begin to overcome current deficits in school SEL programs. EFT is showing promise across many mental health conditions and populations, including children, and is well suited to large group application.

In addition, if students are equipped with techniques for alleviating anxiety and discomfort, they are likely to improve their subjective levels of wellbeing and their personal and social capabilities. Such techniques would therefore support the Australian Government Department of Education and Training and Australian Curriculum, Assessment and Reporting Authority statements on the promotion of social and emotional development and wellbeing in students.

There is growing empirical and clinical support for EFT and energy psychology treatments across a wide range of physical and mental problems, including anxiety.
EFT may be a valuable intervention for primary school students and support schools’ SEL programs. Several researchers have noted the scarcity of data for establishing the relative efficacy of EFT, and that further research is necessary (Clond, 2016; Feinstein, 2012; Karatzias et al., 2011). Specifically, additional research is necessary to investigate the efficacy of EFT when applied to children in schools. The current research seeks to understand the subjective experiences and personal perceptions of primary school children and their teachers following the use of EFT in class. More specifically, the study seeks to understand how EFT affects student wellbeing, with a particular focus on student anxiety. The study will be an important contribution to the emerging area of energy psychology and research into EFT.

3.6 Summary of Chapter

Chapter 3 has presented the educational response of Australia to the international recognition of, and focus on, children’s wellbeing. Policy directions, as well as a range of wellbeing programs and interventions that have addressed student wellbeing in schools, have been presented in this chapter. The chapter has introduced energy psychology and Emotional Freedom Techniques as a possible intervention that can support educational policies and programs in primary schools. An extensive literature review on energy psychology and EFT has presented the background of EFT, links with acupuncture, studies of efficacy, physiological changes, and mechanisms involved in EFT processes. Finally, this chapter has provided the rationale for the current study.
CHAPTER 4

METHODOLOGY

This chapter defines the purpose of the research and provides the conceptual framework that guided each stage of the study. Included in this chapter are the ontological, epistemological, and methodological underpinnings for the study. This chapter further describes the methods and processes used in undertaking the research, including approaches to data analysis and ethical considerations.

4.1 Research Purpose

The purpose of this research was to implement and evaluate Emotional Freedom Techniques (EFT) as a class treatment that may support the Personal and Social Capabilities Learning Continuum in primary schools. More specifically, the research purpose was designed to evaluate the effects of EFT on the anxiety and wellbeing of Year 6 students when used as a class technique. This particular study has been proposed from my interest in positive clinical outcomes from the use of EFT, that I have observed and that have also been reported by individuals in my psychology practice. Personal inquiry regarding similar effects that may be found in an educational setting, with the possibility of improving student wellbeing, has been the foundation for this research. The motivation for the study has arisen from the need for practical measures for addressing student anxiety and wellbeing, in response to the rising and concerning rates of anxiety, depression, and suicide in young people, as outlined in Chapters 2 and 3 of this thesis. Furthermore, undertaking this study has been influenced by my former professional role as a school and academic teacher, which has also shaped my choice of philosophical lens for the research.
4.2 Research Paradigms: Ontological, Epistemological, and Methodological Perspectives

In deciding upon a framework for the exploration of this research, various paradigms were examined. Because the word paradigm is associated with multiple meanings and uses (Guba, 1990; Morgan, 2007), for this thesis I have adopted Morgan’s definition of paradigm as “a system of beliefs and practices that influence how researchers select both the questions they study and methods that they use to study them” (Morgan, 2007, p. 49). Inherent in any choice of paradigm is the researcher’s worldview that is shaped by ontological and epistemological perspectives and is the basis for interpretations and interactions in the world (Guba & Lincoln, 1994; Kivunja & Kuyini, 2017; Lather, 1986). In this thesis, worldview is defined as “the set of beliefs that guide action” (Guba, 1990, p. 17).

Different paradigms provide diverse perspectives for organising observations and reasoning in research (Babbie, 2007), which will engender valid, albeit differing and perhaps divergent, responses to the topic. Choosing the paradigm that may solve research problems most successfully (Kuhn, 1970) involves considering the ontology and epistemology that are distinguishing features of each of the approaches. The current and subsequent sections of this chapter provide an appraisal of ontologies and epistemologies, and their relationship to research paradigms, and the adoption of the pragmatic paradigm as the framework for this study.

To commence the study, the underlying ontological and epistemological assumptions of different paradigms were evaluated to identify an approach that aligned with my worldview, constructed in part from my experience as a teacher and psychologist, and that I assessed would provide the most successful or comprehensive response to the research purpose. On examination of all these elements, the pragmatic paradigm was selected as the most suitable framework for the study and the approach that would provide answers most
successfully (Cherryholmes, 1992; McCaslin, 2008). The process of examination and
discernment of the most suitable framework for this research commenced with evaluating the
two main traditions of research philosophies: positivism and interpretivism (Robson, 2000).

4.2.1 Traditional paradigms

The positivist paradigm, also known as the scientific paradigm or empirical paradigm,
is associated with quantitative methods for producing objective truth (Sale, Lohfeld, &
Brazil, 2002). Ontologically, the positivist paradigm is characterised by a universal truth and,
epistemologically, universal truth can be found through interpreting observations as
measurable entities and facts (Kivunja & Kuyini, 2017). Positivist research attributes
acquisition of knowledge to processes of the mind—deduction, reasoning, and critical
thinking (Reybold, 2002), as the word epistemology suggests. Stemming from the Greek
word *episteme*, meaning knowledge, and *logos*, meaning reason, epistemology implies a
cognitive construct. Yet this notion ignores ways of knowing that are not cognitive.
Additional to the cognitive knowledge domains of authority, rationalism, and empiricism in
the formation of our epistemological positions, researchers may also draw on intuitive
knowledge (Kivunja & Kuyini, 2017; Price, Jhangiani, Chiang, Leighton, & Cuttler, 2017)
where they rely on their emotions or instincts to create knowledge. A positivist approach is
objective, value free, and reductionist, whereby ideas are reduced into small components for
assessing cause and effect relationships (Creswell, 2014). A methodology of deductive logic,
as featured in experiments and surveys, tests the hypotheses which are drawn from theories
and conceptual models, to draw conclusions either in support of, or not in support of, the
hypotheses.

The interpretivist paradigm that emerged in response to positivism seeks to
understand the subjective nature—the emic perspective—of human experience (Hennink,
Interpretivism upholds an ontology of multiple truths for single constructs as opposed to the positivist claim of an objective and testable truth (Guba & Lincoln, 1994). This paradigm, also known as the constructivist paradigm, stems from the notion that reality is socially constructed (Kivunja & Kuyini, 2017); that is, individuals create meanings through their interactions with other people. Interpretivist epistemology is subjective and value laden, and further acknowledges that historical and cultural contexts shape the perceptions of individuals. The methodological approach for interpretivism is qualitative, as the researcher seeks to understand the perspectives of participants in the study. Methods such as in-depth interviews and observations are typically used to provide the researcher with information about individuals in the sample from their subjective viewpoints.

Using either the positivist or interpretivist paradigm for the current study would generate distinct insights about EFT when used as a class technique. A quantitative approach would provide some measurable data before and after the intervention and thus enable the researcher to deduce whether the EFT intervention was effective. The results of this approach would provide useful information about the efficacy of EFT when used by students in a class setting.

Researchers experience inherent difficulties, however, in undertaking systematic and objective hypothesis testing of an intervention in the context of primary schools, given the daily changes to routines. Furthermore, to involve teachers in the study through the activity of leading and modelling EFT in the class would generate variation in the delivery of the intervention, violating scientific testing principles, whereby exactly the same treatment is applied to experimental groups. For the current study, the positivist paradigm using quantitative methods also fails to provide an understanding of the experiences of individuals using EFT in class. The perceptions of students and teachers are key elements when
evaluating the success or usefulness of any class activity and cannot readily be attributed to a numerical score, which is a feature of the quantitative approach.

A qualitative, or interpretivist, approach is able to provide insights into student and teacher perceptions, and was considered a more suitable paradigm than the positivist approach for these aspects of the inquiry. Conversations and observations with study participants would provide some insights about the efficacy of the EFT technique from participants’ perspectives. However, efficacy of an intervention can also be assessed by the degree of change in an individual as a result of applying the intervention. A qualitative approach would fail to provide measures of difference in anxiety or wellbeing perceived by participants after using EFT, thereby limiting the assessment of the effectiveness of the technique and the ability to provide a more comprehensive response to the research question.

Setting the current study within either the positivist or interpretivist paradigms poses limitations on the inquiry and, therefore, does not provide the most successful approach for the study. Neither approach fully embraces the context of the schools and, in particular, the application of EFT as a group activity in a class setting. Many aspects of the class and school contexts, such as class management, absenteeism, and change of routines are important considerations for researching an intervention that affects the whole class operation. For this study, I decided that exploring EFT from an emic perspective was important. I also considered that the use of measures would provide important data for understanding student anxiety and wellbeing levels, and understanding the effect of EFT in quantifiable terms. Finally, I decided the research approach should embrace the complex and changing nature of schools—the study needed to accommodate the practical issues of schools that arise on a day to day basis.

Transcending the two main paradigms was necessary to discern the most suitable framework for the current research and to align with my worldview. As social science
research has progressed, alternative research approaches that transcend the binary model have been developed. The more recently developed research approaches, such as the critical and pragmatic paradigms, extend the ontological, epistemological, and methodological boundaries to overcome some of the limitations of the conventional paradigms (Creswell & Clark, 2011; Johnson & Onwuegbuzie, 2004). A mixed methods approach to research has become an acceptable framework for research in addition to the traditional approaches that use either quantitative and qualitative methods (Tashakkori & Teddlie, 1998). A mixed methods approach associated with the pragmatic paradigm is able to provide a broader focus on the research issue than a single method approach, resulting in a more elaborate understanding about the problem (Creswell, 2014). After exploring various paradigms for this study, the features of the pragmatic paradigm were considered most appropriate.

4.2.2 Pragmatic paradigm

The pragmatic paradigm was selected as the overarching philosophy for this study, partly because of its pluralistic assumptions that support the inclusion of both quantitative and qualitative research, and because of its capacity to answer the research questions in practical contexts. Pragmatism circumvents the rigidity contained in the incompatibility thesis (Howe, 1988) that suggests quantitative and qualitative approaches should not be mixed. Rather, pragmatism embraces compatibilism and supports a realistic and flexible approach to research.

Pragmatism, as an approach to research, was introduced by Charles Sanders Peirce in the late 1800s and was further developed by other philosophers, such as William James, George Herbert Mead, and John Dewey (Cherryholmes, 1992). Implicit in the pragmatic paradigm is the ontological perspective that reality, and therefore knowledge, change over time, being constantly renegotiated through the co-construction of thought and relationship,
which is both subjective and objective (McCaslin, 2008). Derived from the Greek word *pragma* meaning action, pragmatism is focused on change as an outcome of human action, and all action is related to change (Dewey, 1929).

At the heart of the pragmatic researcher is the desire for change and to improve the community (Cherryholmes, 1992; Morgan, 2014; Oquist, 1978). Knowledge, in pragmatic research, is produced from finding solutions to practical problems (Oquist, 1978; Shannon-Baker, 2016) through embracing a relational epistemology. That is, knowledge is formed through the development of insights by people in relation with one another and in the context relevant to the particular study (Kivunja & Kuyini, 2017). Combining beliefs and actions in the process of inquiry is considered important in pragmatic research (Morgan, 2014), thereby increasing our understanding of people and the social environment (Nowell, 2015). In pursuing the inquiry, approaches that are best suited to studying the phenomena, or problems, are applied (Johnson & Onwuegbuzie, 2004; Kivunja & Kuyini, 2017; Nowell, 2015). Pragmatic epistemology is germane to social science research and has become an important philosophical standpoint in other disciplines, such as education.

### 4.2.2.1 Pragmatism and education

John Dewey has become known as a key philosopher in education and a proponent of lifelong learning (Hildebrand, 2018). He challenged the traditional model of educational epistemology of knowledge-transfer in favour of an emphasis on meaning-making (Magrini, 2009) through inquiry. Education, according to Dewey, is akin to personal growth. Dewey argued against an education of dualism, cautioning against an either-or approach, whereby a new approach is blindly adopted for the sake of rejecting the traditional approach (Dewey, 1938). Dewey asserted that meaning, and therefore knowledge, is both individually and socially constructed. There is an intimate connection between education and personal
experience. This connection is a dominant theme in his book *Experience and Education* (Dewey, 1938), a major contribution to educational philosophy. Meaning is relational and evolves through direct communication with other people or more passively through the social impact of culture and history. Communication, Dewey claims, is the essential link in deriving meaning from experience, being the mechanism by which the existence of objects becomes known to us, whereby existence is converted into experience (Laverty, 2016).

The notion that knowledge is eventual rather than antecedent (Dewey, 1929) could give rise to an interpretation that knowledge is not pre-existent but is created (Oquist, 1978). However, knowledge is also antecedent. A level of knowledge, understanding, and awareness precedes and enables the production and attainment of further knowledge—the eventual knowledge—which, in turn, modifies the antecedent body of knowledge. The epistemology of knowledge as learning through action and experience is ongoing, and Dewey has written extensively about the experiential continuum, whereby each experience extends, and modifies, in some way, previous experience (Dewey, 1938). Apart from the tangible elements of the physical domain, knowledge and experience may also comprise intangible or abstract elements, such as mental activity or intuition.

Knowledge acquisition, as a philosophical construct, is foundational in educational pedagogy. Curriculum is grounded in ontological and epistemological issues (Magrini, 2009), which raises the questions: what constitutes knowledge in teaching, and how is knowledge acquired by students? Traditional approaches in educational institutions conceptualise knowledge as facts that are imparted by teachers to their students. Diverging from this perspective, the Deweyan philosophy of pragmatism claims knowledge to be an outcome of actions or meaningful experiences.

Learning through activity is a concept that was also proposed in the mid 1900s by Swiss psychologist Jean Piaget (Piaget, 1952). Although not within the realm of pragmatism,
Piaget’s theory of cognitive development, which introduced the revolutionary concept that intellect and ways of thinking were developmental, shows similarities to Dewey’s experiential, or knowledge, continuum. Common to both philosophies is an epistemology of meaningful experience through interactions with other people and the environment, and common to both Dewey and Piaget are their important contributions to child learning and education.

The challenge for teachers in the classroom is to provide experiences for students that confer meaning, or relevance, as a platform for their growth and basis for lifelong learning. Part of Dewey’s legacy to education is a stronger emphasis on pragmatic epistemology, as educators recognise that relevance, leading to learning and growth for students, is largely attained through inquiry and problem-solving experiences (Dewey, 1916). However, bringing the curriculum alive in the classroom, to facilitate experiences that are meaningful for students, as the primary task of teachers, is an ongoing challenge (Williams, 2017). Constant change within students’ lives, both at school and outside school, in an uncertain world, demands the continual requirement to invent opportunities that provide meaningful experiences for students. In the classroom, student responses to activities are varied, and may be associated with their emotional states that influence cognition, adaptive functioning (Izard, Stark, & Trentacosta, 2008), and affect their readiness for action (Frijda, Kuipers, & Ter Schure, 1989). Students will, therefore, benefit from experiences in the classroom if they are better able to manage their responses to embrace the opportunities provided by teachers. The current research supports a pragmatic ontology and epistemology, which underscore the link between knowledge and experience.
4.2.2.2 Choice of pragmatic framework for this study

The pragmatic paradigm influenced the framework for this study. As a philosophical construct, the pragmatic paradigm underscores experience as the basis of knowledge—that is, individuals’ experiences form their perceptions of the world. Knowledge, therefore, may vary among individuals on account of their differences of experiences and resulting perceptions. As a framework for research, a pragmatic approach provides flexibility in the methods used for understanding the research questions, with the methods chosen that best relate to the specific research questions posed (Creswell, 2014). The pragmatic framework parallels with school environments that are dynamic and sometimes chaotic, warranting a range of approaches for investigating and problem-solving issues on a daily basis. Further to this overview, a comprehensive justification for choosing a pragmatic approach for this study is provided in the following paragraphs.

First, pragmatic research seeks to answer real-world questions (Johnson & Onwuegbuzie, 2004) that are set within the social or real-world contexts, such as schools. As an outcome-oriented approach (Shannon-Baker, 2016), the search for knowledge starts with practical problems, which then gives rise to appropriate action, or development of research methods, for the purpose of finding solutions (McCaslin, 2008), or the eventual knowledge.

Second, the emphasis on shared meaning-making for devising practical solutions to identified social problems (Shannon-Baker, 2016) that is characteristic of pragmatism is particularly relevant for school environments. Students, teachers, and principals as well as parents and community members play a part in negotiating new realities within the school. In addition, in any study, the researcher is a contributor to the collective of shared meanings because future actions are chosen at all stages of the research (Morgan, 2014). In this study, the main players for shared meaning-making, or new realities, are teachers, students, and myself, as we seek to answer the research questions posed.
Third, pragmatism embraces multiple realities and multiple worldviews. Each person’s life is unique with its individual pattern (Sander, 2002) that shapes the way reality is perceived, giving rise to multiple and shifting versions of reality. The realities of students in the research are representative of all students, and vary according to factors such as age, gender, school, class, school, ethnicity, religious affiliations, and time. Although individuals are socially conditioned and molded to social groups (Haslanger, 1995), within groups there are individual variances. Both individuals and groups are in a constant state of change that, therefore, shifts worldviews. Children are clearly influenced and constrained by structures and group norms, but are also key players, or social actors, in the construction of reality and knowledge. Children are social actors rather than passive entities (Reynaert, Bouverne-de-Bie, & Vandevelde, 2009; UNICEF, 2009), and their individual perceptions and experiences continually influence their nature of reality.

All students and staff who are involved in this study will bring to the research their own worldviews and base-line knowledge: perspectives about their lives, their wellbeing and the wellbeing of others; their relationships; aspects of school; and the world around them. This research, therefore, draws on the collective knowledge of students, teachers, and the researcher in developing new knowledge. Because the main focus for research within the pragmatic paradigm is inquiry regarding the nature of human experience (Morgan, 2014) and the problem to be solved (Creswell, 2014), a pragmatic inquiry is appropriate for studying the perceptions of children in the school context. Opportunity can be provided for children’s voices to be heard, through the use of qualitative methods as a component of the pragmatic approach.

Fourth, a mixed methods methodology accommodated within the pragmatic paradigm, that explores the research questions through the use of a variety of methods, is well suited to the context of primary schools. Methods can be used that are most appropriate for
answering the research questions within the school environment. A pragmatic framework can accommodate the practical nature of schools that are busy, flexible, and dynamic. School environments contain multiple elements in constant change that require a variety of actions or responses. The use of mixed methods can enhance research in the school context by offering broader understandings of EFT applied as a class technique than may otherwise be attained through either quantitative or qualitative methods alone (Shannon-Baker, 2016).

Finally, the selection of the pragmatic framework for this research was influenced by my worldview, the field of education, the practical nature of schools, and the schedule of teachers and students. Any research that involves teachers in schools undertaking additional tasks to their essential duties must be manageable, realistic in expectations, and be regarded by teachers as worthy of the time and effort required. That is, if teachers are to voluntarily commit to participate in research, they must perceive an outcome that will assist them, their students, or both, in some practical way.

Chapters 2 and 3 of this thesis have identified problems relating to student anxiety and wellbeing. Arising from these issues, and working within the pragmatic framework, several research questions that are aligned with the research purpose have been formulated as the focus for this study.

4.3 Research Questions

The research questions posed in this study are:

1. What are the perceptions of Year 6 students related to using EFT?
2. Is EFT an effective modality for reducing anxiety and distressing symptoms and improving wellbeing in Year 6 students?
3. What are the perceptions of teachers related to using EFT?
(a) How difficult is EFT to learn and administer?

(b) What have been the effects of using EFT in classes? Have there been any changes in students in the areas of behaviour, performance, and concentration?

(c) Do teachers feel any difference in their own emotional, cognitive, and motivational states after using EFT?

4. Is EFT an effective modality when administered as a class activity?

5. Does EFT support the social and emotional learning curriculum?

6. Are the skills learnt in EFT applied by students or teachers outside the classroom setting?

4.4 Methodology

This research uses a pragmatic methodology with mixed methods. This methodology is most appropriate for conducting research in the complex environments of schools. In accordance with compatibilism, a mixed methods approach can apply the most suitable methods for investigating the research questions. A mixed methods approach is most favourable in the context of schools because researchers can use methods that will help them to understand more clearly the issues posed in the research questions, with the possibility of providing change (Creswell, 2014).

Tashakkori and Creswell (2007) define mixed methods as “research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry” (Tashakkori & Creswell, 2007, p. 4). An integration of findings from the different methods used enhances the outcomes of the study, by providing more information than a single approach may provide.
Morgan (2007) argues for pragmatic methodology to be placed at the centre of the research design, as opposed to a top-down approach, where the more abstract notion of ontological assumptions may be distanced from the epistemological and methodological issues. Rather, a pragmatic methodology reciprocally connects epistemology and methods, as illustrated in Figure 4.1 (Morgan, 2007). Two-way relationships operate at all levels of the research—epistemology, methodology, and methods—and connect these various aspects. This perspective differs to top-down models of other paradigms that propose the flow of research to be ontology → epistemology → methodology → methods (Guba, 1990).

![Figure 4.1. Two-way relationships in the research process with methodology at the centre, adapted from Morgan (2007)](image)

Throughout pragmatic research, the two-way relationships proposed by Morgan may be maintained through the reflexive work of the researcher, a process that also helps to uphold the integrity of the research. In addition, two-way relationships occur through linking our thoughts about the nature of knowledge and our endeavours to produce this knowledge (Morgan, 2007), through the use of methods that best answer the research questions. Qualification of best, however, is attributed to the researcher, who decides which methods are most suitable in the context of the research. Personal perspectives of the investigator are
inherent in research and are influenced by values, social background, culture, and history. The researcher reaches decisions at all levels of the research, such as what to study, the theoretical standpoint, methods used, and interpretation of data (Morrow, 2008). In this regard, “value and fact are intimately related in the production of knowledge” (Oquist, 1978, p. 154). A pragmatic approach does not ignore these aspects, but directs attention to factors that have influenced the choice of research and the investigative means chosen (Morgan, 2007). Once again, reflexive processes can assist researchers to be attentive to their attributions and influences across all research relationships, to uphold research integrity. Maintaining a researcher journal, in which observations, stories, ideas, and insights of the researcher are recorded, can assist with the reflexive process throughout the project.

4.5 Research Design

Within the pragmatic framework and mixed methods methodology, a longitudinal, evaluative approach was applied to assess the effectiveness of EFT as a universal class intervention for student wellbeing. The following flow chart, Figure 4.2, shows the three phases of the research design, with repeated intervention and follow-up stages that were used in the longitudinal design. The intervention in schools was implemented over two phases, after the preparatory phase of engaging schools in the research.
The following sections discuss the research design with reference to the research phases—Preparatory, 1st Intervention, Follow-up, 2nd Intervention, 2nd Follow-up, End of project—as outlined in the flow chart. School selection, participants, and data collection methods are described in the particular phases in which they are presented in the research design. Data analysis for the study is described in the final section of this chapter.

4.5.1 Preparatory phase: Introducing the schools and participants: (a) Meet education executives; (b) Meet school principals; (c) Meet teachers

The research involved four schools in Darwin and surrounding areas of the Northern Territory (NT). Two schools from each of the two main educational sectors in the NT—Northern Territory Department of Education (NTDoE) and Catholic Education (CE)—were
approached for participation. Meetings were arranged with the chief executive officer of NTDoE and the director of CE to describe the research project. A research brief (Appendix C) was distributed to executive leaders ahead of the meetings and addressed the four main areas: the rationale for the study, a description about the proposed study in schools, the expected benefits of the study, and the credentials of myself as the researcher. At these meetings, I provided executive officers with a copy of the research proposal, and I requested support for the study and the necessary procedures for progressing the project.

4.5.1.1 Participants

The population for the research was primary school students in Year 6. This cohort was selected for the study based on several reasons. First, from a previous Australian study that investigated long term effects of a CBT-based program for the reduction of anxiety and depression, Year 6 was considered to be the optimal grade for anxiety and depression preventative programs (Barrett et al., 2006). Second, other researchers have suggested, based on their study, that meditation programs may be more beneficial for emotional regulation in middle school students than high school students (Waters et al., 2015), and Year 6 students are close, in age, to middle school students. Third, I considered that emotional literacy was an important attribute for participants in the research. Greater understanding about student perceptions of tapping is likely to be gained from older students in primary school who can identify and articulate their emotional states more coherently than younger students. Older students conceivably possess a broader language base for expression of concepts related to anxiety and wellbeing. The sample was not randomised, as schools were selected based on direction from executive leaders, and classes were selected by school principals.
4.5.2 First intervention phase: (a) Teacher training; (b) Pre-test assessment and teach EFT to students; (c) Introduction of Stage 1

Two 1-hour training sessions were arranged with the project class teachers at mutually agreed times. The first training session was designed to introduce staff to the purpose of the study, the concept of energy psychology, and to teach staff the tapping protocol to be used in the project, along with use of the number line for the Subjective Units of Wellbeing (SUW) assessment (Appendix B, part b). This session was made available to all school staff with endorsement of the principals. The second training session was designed for project class teachers only, to explain the process for implementing the project in classes. Teachers were provided with a handout stating the steps for delivering the tapping session to the class (Appendix D).

The commencement of The Tapping Project (the project) in classes was planned for Term 2, and was introduced to each class according to individual class schedules. Communication was held with each class teacher to negotiate dates and times for the initial tapping session. The introduction of the project in classes was incorporated into a 1-hour health and wellbeing lesson presented by me, with class teachers present. As well as presenting the tapping technique to the students, the lesson was a model for teachers in how to apply tapping in the class context. The following aspects were covered in the introductory lesson:

1. An explanation of the research and the concept of tapping
2. Administration of the anxiety assessment instrument, described in the section, “Quantitative measures” of this chapter
3. Discussion of feelings and the different words used when people feel upset or not great. In discussing the vocabulary for feelings, anxiety and its synonyms were
assigned to one group and labelled Anxiety, and the remaining words were
assigned to a second group and labelled Not Great (Appendix E)

4. Discussion of the purpose and benefits of using techniques to help alleviate
difficult or distressing feelings

5. Introduction of The Tapping Project book and how to use the book

6. How to measure wellbeing levels on the 0-10 scale (Appendix B, part b)

7. The tapping points and how to tap (Appendix B, part a)

8. The first tapping session for the project

The anxiety questionnaire—full description of this instrument is presented in the
“Quantitative measures” section of this chapter—was administered to all students in classes
prior to students performing any tapping sessions, to assess pre-intervention anxiety levels.
Following the initial lesson, teachers were requested to administer tapping sessions with the
whole class at the commencement of each day, immediately after recess and lunch breaks, for
a period of four weeks, the period of Stage 1. Tapping sessions involved the following
sequence: (a) assessing and recording wellbeing levels and associated feeling; (b) performing
the tapping protocol, and (c) re-assessing and recording wellbeing levels. The project book
was designed for students to record wellbeing levels along with associated feelings and any
comments they may wish to record. Four classes were planned to be randomly selected for
performing the tapping sequence twice, to observe any differences between one and two
sequences of tapping. A class tapping session was expected to last around 5 minutes for a
single sequence and slightly longer in classes where two tapping sequences were performed.
4.5.3 Follow-up phase: (a) Data collection; (b) Feedback and reporting to teachers; (c) Evaluate-Review-Revise

All data—student self-reported scores and notes recorded in project books, student reflections of Stage 1, audio recordings of student and teacher interviews, and my own observations gathered throughout the intervention period—were gathered at the schools. The anxiety instrument was planned to be re-administered following Stage 1, and variation to this administration is described in the following chapter.

Student interviews, using semi-structured design, were conducted within the school and during school hours. Students were randomly selected for interview and approved by their class teachers. Given that teachers understand their students’ capabilities, they may consider some students not sufficiently equipped or suitable for interviewing. This consideration may be due to language or cognitive difficulties, possible emotional reactions, or personal circumstances of students. Notes were sent home with selected students to notify parents or carers of the time and location of the interviews, and to invite them to be present if they wished.

Teacher interviews were conducted in each of the schools following Stage 1 using semi-structured interview techniques. Both student interviews and teacher focus groups were designed to uncover ideas for improvements that could be implemented in Stage 2.

4.5.4 Second intervention phase: Introduction of Stage 2

The 4-week tapping program of Stage 1 was repeated in the following term—Stage 2—and students were issued with a new project book. Commencement dates for Stage 2 were negotiated with class teachers, as with Stage 1, and I introduced Stage 2 to each of the classes separately.
4.5.5 Second follow-up phase: Data collection

Student project books were collected at the end of Stage 2, and the anxiety questionnaire was again administered to all students. Where possible, the same students interviewed in Stage 1 were interviewed at the end of Stage 2. If the same students were not available, other students were randomly selected for interview and approved by class teachers. Student interviews, based on Stage 1 guiding questions and semi-structured in design, were recorded. Teacher interviews were conducted in school groups following Stage 2 and were guided by prepared questions. The project in schools was expected to be completed by the end of Term 3.

4.5.6 End-of-project: Feedback and reporting to teachers and executives

Following the completion of the project and interviews with students and staff, meetings were held with each of the school principals to report on the project. Some guiding questions were formulated for these meetings. Feedback about the project was provided to NTDoE and CE executive officers.

4.6 Ethical Considerations

When undertaking research with a sample of children, ethical issues are a primary consideration and must be raised at the forefront of the study. Without careful attention to issues such as access, informed consent, and legal processes for working with children, the research cannot proceed. In the Northern Territory (NT), working with children poses legal prerequisites, to which researchers also must adhere. For example, criminal record clearances must be obtained, and a Working with Children card—also known as Ochre card—must be issued by a department of NT Police, for everyone who seeks to work in any capacity with children in schools or other institutions. For this study, mandatory legal
processes and other ethical issues for working with children were undertaken prior to proceeding with subsequent stages of the study.

The primary reason for greater consideration of ethical issues when conducting research with children compared with adults is the disparity of power between the children and the adult researchers (Morrow & Richards, 1996). Children are under the age for legal autonomy and are therefore vulnerable in many respects, such as limited capacity for understanding and decision making, that poses a risk of exploitation (Sanci, Sawyer, Weller, Bond, & Patton, 2004). In programs that are investigating a health and wellbeing intervention, safety of children and protection of their rights and dignity is paramount (Alderson & Morrow, 2011). For the current study, processes were devised at the outset with all participating school teachers, for responding to the unlikely occurrence of any negative reactions of students that may arise as a result of the research. The protection of children’s rights, dignity, and wellbeing was ensured at all stages of the research.

Providing informed consent is deemed possible only for individuals who have attained legal autonomy. Because children are under the age for legal autonomy, they may not have developed full capability in understanding the implications of informed consent (Green, Duncan, Barnes, & Oberklaid, 2003). In Australia, the legal age is set at 18 years, and thus primary school children cannot provide informed consent. Nevertheless, from an ethical perspective, obtaining children’s willingness to participate in research—a process termed assent, in which the nature of the research and the requirements of participation are explained (Dockett, Perry, & Kearney, 2013)—is an important pre-requisite when undertaking research with children. In seeking the assent of children, the research must be explained in a manner that is comprehensible to them. In addition, gaining informed consent from the children’s parents or adult carers is required. Both assent and informed consent are
required before engaging children in any research in which their responses and views will be
gathered and used in formulating reports (Spriggs, 2010).

4.6.1 Ethical processes for this study

An ethics application was submitted to Charles Darwin University Human Research
Ethics Committee, and approval was granted prior to the commencement of this study
(Research Proposal H18008, Appendix F). In addition, written approvals were granted by the
Research and Evaluation Team of the NTDoE and the director of Catholic Education (CE) to
conduct the research in Northern Territory Government and Catholic schools, respectively
(Appendices G and H).

Information about the research was explained in a plain language statement (PLS) for
students (Appendix I) and for parents or carers (Appendix J). The PLSs also noted that
students may opt out of the tapping activity at any time. Consent forms were attached to each
PLS, which were required to be signed by both students and parents, for student participation
in the research. All correspondence, including PLS and consent forms, were authorised by
the school principal prior to being issued. Teachers received student and parent - carer forms
and distributed these forms to their students. Teachers were asked to explain the study to
students and encourage them to take the forms home to discuss the research with parents or
carers, and return the signed forms if they wished to participate in the study. Only students
who returned signed forms from both themselves and their parents or carers were included in
the study. In addition to student and parent or carer consent, a PLS was provided for teachers
of the classes (Appendix K), and informed consent was given by all participating teachers.

Confidentiality was assured to all students, parents and carers, school personnel, and
anyone else involved in the project, noting that no identifiable information about individual
participants will be released in this thesis or any publication reporting on the research. The
four schools have been coded by letters A, B, C, D, and all students and teachers interviewed have been assigned pseudonyms. All documents—consent forms, project books, notes, and recordings—have been stored securely in locked cabinets and password-protected computer files, relevant to the data type.

4.7 Data Collection Methods

A range of data collection methods that were considered most appropriate for the research questions posed, and the primary school context, were utilised. Quantitative and qualitative measures used in the study are described in the following sections of this chapter.

Within the mixed methods methodology, an action research model was used for gathering shared understandings about the project. Although action research is not the main methodology for the study, this process was considered relevant for students and teachers to share in the ownership and ongoing development of the project. Action research, a term coined by Kurt Lewin (Reason & Bradbury, 2005), empowers people to take action to improve their future (Sagor, 2010). In undertaking action research, the researcher captures the perspectives of stakeholders, which enhance the understanding for developing or modifying strategies in a particular setting (Beaulieu, 2013).

The action research model involves planning, acting, observing, and reflecting (Robson, 2000) in a cyclical process, and is considered to be a suitable methodology when three key elements are met (Sagor, 2010): (a) there is a focus on the researcher’s professional action, (b) the researcher is empowered to adjust future action based on the research results, and (c) improvement is possible. Consistent with the action research key elements, the study: (a) focuses on the researcher’s professional actions and expertise in administering EFT for student wellbeing, (b) the researcher is empowered by school principals to modify the actions pertaining to the study with consideration to staff and student feedback, and (c) student
wellbeing is anticipated to improve as a result of the tapping. The action research model is appropriate for engaging other stakeholders in the process, particularly with regard to their actions and observations during the implementation phases, and reflection and planning for subsequent stages of the research (Beaulieu, 2013). Through the reflection process, those involved in the research are empowered to provide input for change that would improve the project in the second intervention phase.

4.7.1 Quantitative measures

Because the study’s focus was student wellbeing, quantitative assessment was conducted only for the student data set. Two quantitative measures were used to assess children’s anxiety levels before and after the intervention: the Subjective Units of Wellbeing Score (SUWS), and The Revised Children’s Manifest Anxiety Scale - second edition (RCMAS-2).

4.7.1.1 The Subjective Units of Wellbeing Score

The Subjective Units of Wellbeing Score (SUWS) has been adapted from the Subjective Units of Distress Score (SUDS), a measure of individuals’ direct perception of their distress levels. SUDS is a widespread measure of assessment when using EFT, as well as many other psychological and medical interventions (Tanner, 2012). Individuals rate themselves between 0 and 10, where 0 indicates no perceived level of distress and 10 indicates extreme perceived level of distress. Adapting this scale to a wellbeing measurement—SUWS—a reversal of scores is applied, where 10 is the greatest perceived level of wellbeing—feeling great—and 0 is the lowest perceived level of wellbeing—feeling poorly or not great.
4.7.1.2 The Revised Children’s Manifest Anxiety Scale - second edition

The Revised Children’s Manifest Anxiety Scale - second edition (RCMAS-2) is a questionnaire comprising a set of yes/no items that can be completed by students in a similar way to other tasks they may be asked to undertake in class. The RCMAS-2 instrument is a well-established measure for assessing children’s levels of anxiety (Ang, Lowe, & Yusof, 2011; Kamphaus & Mays, 2013), with strong to very strong internal consistency reliability based on Cronbach’s alpha estimates (Reynolds & Richmond, 1985, 2008). In their study, Reynolds and Richmond (1985, 2008) reported the estimates to be .92 (very strong) for Total Anxiety, and subscale estimates ranging from .75 to .86 (strong). These analyses confirm the measure comprises one scale. As evidence of validity, high scores on the RCMAS-2—71 and above—tend to coincide with extremely problematic levels of anxiety.

The RCMAS-2 has also been found to be a reliable measure for anxiety across genders, ethnic backgrounds, and ages (Ang et al., 2011; Reynolds & Paget, 1981; Reynolds & Richmond, 1985, 2008; Varela & Biggs, 2006). The second edition of this instrument is based on the Revised Children’s Manifest Anxiety Scale (Reynolds & Richmond, 1978), for which construct validity is supported by extensive factor analysis (Reynolds & Paget, 1981; Reynolds & Richmond, 1979). The RCMAS-2 is a suitable tool for measuring anxiety levels of Year 6 students.

In consideration of a younger cohort—primary school students—and to minimise disruption to classes, this study was designed to use the RCMAS-2 Short Form which is a subset of the RCMAS-2, consisting of the first 10 items. The researchers have noted that the Short Form Total Anxiety scores “are slightly less reliable than TOT (Total Anxiety) scores,” but are considered to be “closely related” (Reynolds & Richmond, 1985, 2008, p. 18). A study which included 1,003 students, aged 7 to 19 ($M = 12.02, SD = 2.67$), examined the psychometric properties of the Short Form RCMAS-2, found support for the construct
validity of scores (Lowe, 2015). In addition, gender and age were found to have strong invariance and partial strong invariance, respectively, indicating the unlikely presence of gender and age bias on the Short Form.

Scores on the RCMAS-2 are standardised $T$-scores, with a mean of 50 and standard deviation of 1. The suggested qualitative descriptors for RCMAS-2 scores have been presented in four categories: extremely problematic for scores 71 and above; moderately problematic, for scores 61-70; no more problematic than for most students, for scores 40-60; and less problematic than for most students, for scores 39 and below.

4.7.2 Qualitative measures

Qualitative data for the current research included: interviews conducted with students and teachers; comments provided by students in their project books; anecdotal stories reported to me by students, teachers, and school staff; and my personal observations. Hearing directly from students and teachers about their perceptions of using tapping in the classroom, and whether they may have used this technique outside of planned tapping sessions, was an important aspect of the investigation. Interviews were recorded and formed the primary source of qualitative data, while the student book comments and anecdotal stories formed secondary data sources. Anecdotal stories that were reported to me were noted in the researcher’s journal, together with details about the context of the stories, such as school, status or position of person reporting the story, and date on which the story was reported. My observations and reflective comments were also recorded in the journal. The researcher’s journal, therefore, formed an additional qualitative data source, being a chronicle of project notes and reflexivity.

The basis of qualitative inquiry is “intimate familiarity with the phenomenon” (Charmaz, 2004, p. 984). Charmaz elaborates that intimate familiarity is gaining an
understanding of the contexts and the worlds of participants. Although absolute familiarity cannot be attained by researchers, I have developed familiarity with school environments in my former roles of primary school teaching. In addition, my current role as a psychologist has equipped me with skills for interviewing and eliciting sensitive information from both children and adults. Charmaz (2004) notes that the researcher’s training, along with theoretical standpoints and interview contexts, are regarded as important influences in interviewing and recording. My training and experiences have guided the interviewing techniques used with both students and staff, and no additional training was considered necessary prior to conducting interviews with research participants (Partington, 2001).

4.7.2.1 Interviews and focus groups

Practical measures for eliciting student and staff perceptions from each of the classes culminated in the decision to conduct semi-structured individual interviews with a random selection of students from each class, and focus group interviews with teachers and staff in each school set, following each stage of the project. Despite challenges that conducting interviews with children may present (Greene & Hogan, 2005), semi-structured interviews were considered to be the best method for eliciting the opinions of student participants. Techniques used, along with challenges, are addressed in the following sections that describe student and staff interviews.

Students

Random selection of students for interviews was made through the internet based site, www.randomizer.org. From the random selection, only students who were willing to participate in interviews became student interviewees. Teachers also were required to approve the students who were selected for interview. Individual, rather than group,
interviews for students were chosen, to provide a better opportunity for students to impart confidential feedback about their experiences of tapping and the project. While some authors have suggested that focus groups represent a communication setting that is more natural and familiar for children (Eder & Fingerson, 2002; Fargas-Malet, McSherry, Larkin, & Robinson, 2010), peer pressure in student groups can influence individuals’ responses (Gibson, 2012). When placed in groups, some students may feel the need to conform, or some students may feel intimidated by comments and behaviour of more dominant peers in the group. Thus, some students may withdraw from conversation. On an individual basis, students are granted greater opportunity to present their personal story, contribute to the conversation, and offer more honest feedback. Prior to commencing interviews in qualitative research, the interviewer should establish rapport with interviewees (Morse & Field, 1995). Informal language and relaxed physical presentation was adopted to assist in establishing rapport with students. In addition, adopting these measures may help to reduce the effect of authority and power imbalance (Eder & Fingerson, 2001; Hill, 2005; Morrow & Richards, 1996).

In addition to student responses being elicited through semi-structured interviews, the project tapping books were designed so that students could add regular comments throughout the tapping stages. The books provided a wider range of comments and perceptions about the project than was offered through the interviews of selected students.

**Teachers**

Staff interviews were conducted in school-based focus groups within the respective schools. Focus groups that are conducted in familiar contexts for participants can assist individuals to feel comfortable and willing to offer candid responses and lively discussion. In this respect, focus groups are useful structures for project evaluation (Leung & Savithiri, 2009). My familiarity with the school environments also assisted in establishing a
comfortable and open atmosphere in the focus group settings (Kreger & Casey, 2009). Despite focus groups being considered a quick way to gather data (Beyea & Nicholl, 2000), the organisation required for gathering together multiple staff members in a school environment, as well as the transcription and data analysis processes, overrides any time efficiencies that may be attained through conducting focus groups (Mansell, Bennett, Northway, Mead, & Moseley, 2004). The pragmatic factors of eliciting the perceptions of teachers were paramount in the decision to conduct focus groups.

A clear purpose about the study is important when planning focus group interviews (Kreuger & Casey, 2009). The purpose of the current study was clearly articulated in required documentation for this Doctor of Philosophy research, namely, the Confirmation of Candidature process and the submission to the university Human Research Ethics Committee regarding ethical considerations and processes for the research. Explanations about the research purpose were also necessary for educational executives, to obtain support for the study, and for principals and teachers, to engage in the project.

Questions for the focus groups (Appendix O) were created in accordance with the research purpose. In particular, questions were designed to elicit responses to the research questions posed in this study. Open questions, which are considered a feature of focus groups (Krueger & Casey, 2009), were designed to guide the discussion and facilitate dialogue among participants in the groups. A key ingredient for a positive outcome from focus group interviews is the skills of the moderator (Beyea and Nicholl 2000). My familiarity with working with teachers, leading groups in educational contexts, and my skillset developed in psychology for eliciting perceptions and information about personal experiences, were positive attributes for conducting focus groups. My familiarity among teachers also assisted in developing rapport with the staff, and there was a comfortable connection with participants, who appeared not afraid to offer open and honest feedback.
4.8 Data Analysis

4.8.1 Quantitative data analysis

In this study, quantitative analyses were applied only to the student data. Teachers were participants in the study primarily to provide their perceptions about the effects of students using tapping in their classes.

Student scores gathered from the RCMAS-2 instrument and SUWS were entered into Microsoft Excel spreadsheets following each stage of the project, and were imported into the Statistical Package for Social Sciences (SPSS) for the calculation of descriptive and inferential statistics.

4.8.2 Qualitative data analysis

Interviews were recorded and transcribed verbatim by a professional transcription agent. A thematic analysis process was followed to identify, analyse, and report the patterns identified in the data set (Braun & Clarke, 2006). Similarities and differences in the data can be identified using a systematic thematic analysis. Braun and Clarke (2006) delineated a six-step process for undertaking thematic analysis to provide researchers with a comprehensive method for examining the data and offering clarity around analytic processes and practices. These steps are: (a) familiarity with the data, (b) generation of initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) producing the report. Analysis of data was guided by these steps with reference to the study’s research questions. Following the thematic analysis of primary qualitative data for both students and teachers, secondary qualitative data were incorporated into the respective themes.
4.9 Summary of Chapter

This chapter has provided a comprehensive description of the research purpose and the philosophical underpinnings of the study. The rationale for the pragmatic framework that was chosen for this research has been presented, along with the research questions that guided the study. The chapter has further presented all stages of the research design—selection of participants, research methods, measures and related activities, data collection and data analysis methods, and ethical considerations. The following chapter details the application of the research design, in particular, variations to aspects of the design that resulted from changed elements working within a school environment.
CHAPTER 5
PROJECT IMPLEMENTATION

This chapter extends the previous chapter’s presentation of the research design and data collection methods by detailing the actual implementation of The Tapping Project (the project) in schools. To maintain consistency, and for ease of comparison, this presentation of the research implementation uses the same format as the previous chapter for research design and data collection methods.

5.1 Research Design

The study was undertaken in accordance with the proposed research design. However, consistent with the pragmatic paradigm for the study, which incorporates the multiple realities of people and schools, flexibility in applying the research design was necessary to meet the requirements of each of the schools. Extensions and variations on the study’s design were, therefore, part of the implementation of the study.

5.1.1 Preparatory Phase: Introducing the schools and participants: (a) Meet education executives; (b) Meet school principals; (c) Meet teachers

The study involved four schools in the Darwin, Palmerston, and neighbouring rural area of the Northern Territory (NT). Two schools from the Northern Territory Department of Education (NTDoE) sector and two schools from the Catholic Education (CE) sector were recruited for the study. In the early research stages, I contacted the chief executive officer (CEO) of NTDoE and the director of CE by email to arrange a meeting to describe the research project. The email also contained a short description about the research—the research brief (Appendix C)—and a short video clip of students tapping, to assist their
understanding about the technique being evaluated in the study. After the initial contact made, separate meetings were convened with the CEO of NTDoE and the director, CE. At these meetings, a copy of the research proposal was distributed to the executive leaders, and in-principle support for the research was gained. Two schools from each of the sectors—NTDoE and CE—were requested for participation in the study, and procedures for recruiting the schools were outlined by each executive leader.

In applying the procedure for NTDoE, I emailed two school principals known to me to ascertain their interest in participating in the study. This email contained an outline of my meeting with the CEO, the research brief, and the video clip on tapping that had been previously sent to the CEO. This communication resulted in an enthusiastic response for the study, with both school principals agreeing to participate in the research.

For the CE sector, an arrangement was made for me to present the research proposal in a meeting of all school principals. However, because of unforeseen circumstances, I was unable to attend the meeting, and information was presented on my behalf by the CE educational psychologist who was also trained in Emotional Freedom Techniques (EFT). At this forum, school principals were invited to contact me directly if they wished for their schools to participate in the study. Because no principals contacted me, I continued to liaise with the CE principals’ consultant who passed on the contact details of two principals who had shown interest in the presentation. I contacted both school principals by email and provided them with the same information that I provided the NTDoE principals. This action resulted in both principals registering interest and the schools becoming involved in the study.

Prior to advising me of their support for the project, each of the four principals convened discussions with their respective Year 6, or Year 5-6 teachers for schools with composite classes, along with other key staff, such as the assistant principals or wellbeing
specialists, to gauge their interest in implementing the project in classes. There was common agreement among principals about the importance of exploring methods that would assist students to better manage their wellbeing levels and assist students and teachers in the classroom in the area of social and emotional wellbeing. The main concern expressed by some principals regarding the research project was teachers feeling overburdened. The study was designed to cause minimum disruption to teachers and classes.

5.1.1.1 Participants

The sample for the research comprised 138 Year 5 and Year 6 primary school students and nine teachers in four Darwin and district schools—two NTDoE and two CE schools. As originally planned, the student sample was not randomised: classes of students were selected for the study by the respective school principals and volunteering teachers. The study was initially planned to be confined to Year 6 student participants; however, I decided to also include Year 5 students, because some of the participating schools combined Year 5 and Year 6 classes. The study’s sample comprised five composite Year 5-6 classes in two schools and three Year 6 classes in two schools, totaling eight classes in the four participating schools. Students in the study were aged 10-12 years. Of the eight classes in the study, five classes were represented in the two NTDoE schools ($n = 83$) and three classes in the two CE schools ($n = 55$), shown in Table 5.1.
Table 5.1.

*Participant Schools and Classes*

<table>
<thead>
<tr>
<th>School</th>
<th>Location</th>
<th>School Type</th>
<th>Year Level</th>
<th>Class ID</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Palmerston</td>
<td>NTDoE</td>
<td>6</td>
<td>A</td>
<td>14</td>
</tr>
<tr>
<td>B</td>
<td>Darwin</td>
<td>NTDoE</td>
<td>5-6</td>
<td>B1</td>
<td>22</td>
</tr>
<tr>
<td>B</td>
<td>Darwin</td>
<td>NTDoE</td>
<td>5-6</td>
<td>B2</td>
<td>18</td>
</tr>
<tr>
<td>B</td>
<td>Darwin</td>
<td>NTDoE</td>
<td>5-6</td>
<td>B3</td>
<td>16</td>
</tr>
<tr>
<td>B</td>
<td>Darwin</td>
<td>NTDoE</td>
<td>5-6</td>
<td>B4</td>
<td>11 + 2</td>
</tr>
<tr>
<td>C</td>
<td>Palmerston</td>
<td>CE</td>
<td>6</td>
<td>C1</td>
<td>16</td>
</tr>
<tr>
<td>C</td>
<td>Palmerston</td>
<td>CE</td>
<td>6</td>
<td>C2</td>
<td>24</td>
</tr>
<tr>
<td>D</td>
<td>Palmerston rural</td>
<td>CE</td>
<td>5-6</td>
<td>D</td>
<td>15</td>
</tr>
</tbody>
</table>

*Note.* Two students in Class B4 joined the project in Stage 2

A brief description of each of the schools is provided in the following paragraphs. The descriptions include school enrolment numbers, identified percentage of Indigenous students, and other relevant features of the schools in the study. The proportion of Indigenous students in the schools has been included because of the high representation—around 30%—of the total NT population—identified as Aboriginal and Torres Strait Islander Australians (Australian Bureau of Statistics, 2016). Ethnicity of individual students was not requested for the study’s demographic information, and the percentage of Indigenous students, along with other attributes of students in classes, was offered by some teachers.

**School A**

The study included one Year 6 class—Class A—from School A. In 2018, this school’s enrolment number was 268, with the majority of students identified as Indigenous. Teachers of Class A noted that around 80% of students in their class were Indigenous.
Students in Class A were mostly English as a Second Language (ESL) learners, and teachers further noted that a large cohort of these students had experienced trauma. As well as local Palmerston children who were enrolled at School A, children from remote NT communities attended the school when their families visited Darwin or Palmerston. The length of time these children stayed at the school varied from days to months, which resulted in a transient student population across all classes in the school. The teachers of Class A noted that, between Stage 1 and Stage 2 of the project, six students left the class and another six students joined the class. Teachers also noted that the students who moved between schools frequently were subjected to ongoing differences in class structures and teaching styles, which, along with their trauma backgrounds, further compromised their wellbeing and learning. For example, students may feel anxious adjusting to new classes, and may lack confidence for participating in new class routines. Besides the majority of students being ESL learners in this class, a few (unspecified number) students were identified by the teachers as having special needs, such as autism, foetal alcohol syndrome, and attention deficit disorder.

School B

School B was the largest school in the study, with a total enrolment number of 384. Twenty-two percent of students in School B were identified as Indigenous. This suburban school has been designed with an open-planned style, using low partitions rather than walls to divide classes. The school comprised classes of composite year levels, and this structure resulted in Year 5 students becoming involved in the project. The research design initially proposed Year 6 student participants, but the school principal and I agreed to maintain the composite class structure in undertaking the study rather than separate the year levels. This decision widened the age group of student participants in the study from the original design.
Tashakkori and Teddlie (2010) note that flexibility is a feature of the pragmatic paradigm that enables the most practical approaches to be used in addressing the research questions. In School B, three out of the four composite Year 5-6 classes operated in the open-plan style, with the remaining class based in a small room. This separate class consisted of fewer students than the other three classes and only comprised students with ESL learning needs.

**School C**

This school reported a student enrolment number of 285 that included 13% Indigenous students. Students in School C lived in the Palmerston area. According to the school principal, the index of socio-economic advantage for this area is low, and the school has a relatively high turnover of students. The principal further stated that among this population, academic achievement may not be highly valued. Established within the Catholic Education system, School C represents a choice for parents who wish to send their children to a non-public school. The school presented physical aspects that reflected Christian beliefs and the Catholic foundations of the school, such as religious pictures and icons of Jesus, Mary, or crosses displayed in all classrooms. Consistent with its presentation, each class began the day with a prayer, followed by Community Circle, where students and the teacher sat in a circle facing towards the centre. The concept of Community Circle is to create a safe space for students to share some personal reflections without comment or judgment from others in the circle. Different to all the other schools in the study, this school implemented a welcoming process for visitors to the school. Upon my arrival at the school’s front office, the receptionist phoned through to the class teacher, and two students were sent to the front office to accompany me to the classrooms. For one of the participant classes in this school—Class C2—a teacher-sharing arrangement entailed the assistant principal as the main teacher
taking the class for 3 days a week, and a permanent part-time teacher taking the class for the remaining 2 days.

**School D**

School D was the smallest school in the study, with a total enrolment number of 109 students. Eight percent of students in the school were identified as Indigenous. Located in the rural area of northern Australia, this school comprised students from families who resided outside of the urban areas of Darwin and Palmerston, and therefore represented different demographic characteristics to the other schools in the study. Rural life for students in this school generally includes living on larger blocks of land than students from the urban schools, having horses and other farm animals on their blocks, with out-of-school interests that include interactions with farm activities. Some parents of these students are likely to engage in rural employment, such as farming—raising cattle or horses, or growing produce—or heavy machinery operation, whereas other parents may commute to Darwin or Palmerston for city-type employment. Like School C, School D displayed images of the Catholic faith, with religious pictures and icons displayed in each of the rooms. Due to low student numbers, some year levels were combined, such as the composite Year 5-6 class in this study.

### 5.1.2 First Intervention Phase: (a) Teacher training; (b) Pre-test assessment and teach EFT to students; (c) Introduction of Stage 1

The two 1-hour training sessions with the project class teachers were convened at each of the schools on two consecutive weeks after school. Many staff members, in addition to the project class teachers, accepted the invitation to attend the first training session, which provided an overview of the current study, information about EFT, and the method for
applying the tapping protocol. Only project class teachers attended the second training session, which focused on the process for implementing the project in classes.

The Tapping Project commenced in Term 2 in each of the schools. In the NT, there are four terms per school year, with around 10 weeks in each term. Even though each school commenced the project in the same term, the date of commencement varied. Reasons for variation included the need to manage the introduction of the project across eight classes in divergent geographic locations, and the need to accommodate the project around existing or planned school and class schedules. The two teacher training sessions were conducted in the first 3 weeks of Term 2, followed by the introduction of tapping to each of the classes. School A commenced the project in week 4 of the term, classes in Schools B and C commenced in week 5, and School D commenced the project in week 6.

As planned, tapping was introduced to students in a health and wellbeing lesson—outlined in the previous chapter of this thesis—that I presented to each class. This lesson was interactive and included students brainstorming words relating to difficult feelings and emotional states. The words that students nominated were written on the board and then categorised into two groups: anxiety and not great (Appendix E). These groups were loosely defined, and some classes presented differences of opinion about the category of a word. For example, the word frustrated was considered by some students to belong to the group Anxiety, whereas other students included this word in the Not Great category. The correct grouping of words was not considered the main focus of this activity. Rather, the objectives of brainstorming were the identification of emotional states, and students having access to vocabulary that described how they were feeling. Teachers were present during each of the introductory lessons, and they later reported that the lessons were beneficial for students in raising their focus on feelings and emotional states. During these lessons, teachers observed the method I used for performing the tapping protocol with the whole class.
Prior to teaching the tapping protocol to students in the introductory lesson, I administered the RCMAS-2 instrument to assess pre-intervention anxiety levels. Because the school principals and class teachers decided the project would be a whole class activity, all students—including those who were not research participants—took part in most of the project activities; however, only the data of students who had assented, and whose parents had consented to the research, were retained.

Following my introductory lessons, the tapping sessions were led by teachers 3 times a day—in the morning, after recess, and after lunch. The research design proposed that 50% of the classes would perform one tapping sequence on each occasion, while 50% of classes would perform two tapping sequences. Because two schools had multiple classes in the project, random selection of classes to perform two sequences of tapping was made within-schools in the first instance, followed by between-schools for the remaining classes. Classes A, B1, B4, and C2 were the classes that performed two sequences of tapping on each occasion. A class tapping session lasted around 5 minutes for a single sequence and was slightly longer in classes where two tapping sequences were performed. The time taken for each of the tapping sessions also varied according to classroom management practices, such as the manner in which books and pencils were distributed and the amount of time teachers allowed for students to write comments in their project books. As classes became more familiar with the tapping process, teachers adapted the delivery of tapping. These adaptations resulted in variations in the administration of the sessions across classes and also within classes, due to the flexible and changing nature of the school and class schedules. For example, most teachers nominated a volunteer student who would lead the class in tapping. Students were selected on each occasion, either by direct request to the teacher by the student or from a show of hands. A small number of students chose not to participate in the class.
tapping project activities, and engaged in quiet reading instead. In some classes, some students opted in or out on any given day.

At around the midpoint of Stage 1 of the project, I visited each of the classes and interacted with the students, and led the tapping session for that period. During this session, I taught the students about finger tapping, or secret tapping (Appendix L), which is a tapping method that involves tapping on only the thumb and finger acupoints and can be performed in a way that is discreet and not observed by others. Furthermore, I encouraged students to continue tapping any time on their own, either at school or outside school, such as at home or at sport. At the end of Stage 1, students in some classes wrote individual reflections of tapping and their experience of the project in their project books.

5.1.3 Follow-up phase: (a) Data collection; (b) Feedback and reporting to teachers; (c) Evaluate-Review-Revise

Stage 1 data were gathered at each of the schools towards the end of Term 2. The timing of data collection varied among schools and was dependent on each school’s schedule. Data collection for Stage 1 consisted of: SUWS and notes recorded by students in their project books, student reflections of Stage 1 of the project, audio recordings of interviews with students and teachers, and my own observations that were gathered throughout the intervention period.

Students

In their project books, students had recorded self-evaluations of wellbeing—SUWS—both before and after each tapping intervention, along with their corresponding feelings—anxious, not great, or great (Appendix M). Some teachers facilitated students writing end-of-stage reflections, which were also included in the project feedback.
Interviews with randomly selected students were conducted in locations within the schools nominated by class teachers, such as a staff workroom adjoining the classroom, or a table in the yard directly outside a classroom. Between two and four students per class were interviewed because I considered this number would elicit a representative selection of the project cohort. A total of 24 students across all classes were selected for interview and, where possible, at least one boy and one girl from each class were selected. The number of students chosen accommodated the possibility that some students may not engage well in interview, which would reduce the volume of rich and useful data available for the study (Braun & Clarke, 2006). An average number of three students per class to be interviewed was decided and this figure was adjusted based on school representation and class size, shown in Table 5.2.

Table 5.2.

<table>
<thead>
<tr>
<th>STAGE</th>
<th>A</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
<th>C1</th>
<th>C2</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
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<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Students were randomly selected through an internet based site, www.randomizer.org, and all students selected for interview were approved by their class teachers. In some cases, randomly selected students were not available for interview, and another student was either randomly selected through the same method or selected by the class teacher. Notes were sent home with selected students to notify parents or carers of the time and location of the interviews and to invite them to be present if they wished. All interviews were conducted in the school during school hours and no parents or carers were present.
In the school setting, there were few opportunities for me to establish rapport prior to the research interviews (Morse & Field, 1995). However, direct interactions with students in the classes were made during the project’s introductory lesson and during additional visits to classes over the course of the project. During these visits, I was able to engage in informal conversation and develop rapport with some students. Student interviews occurred at the end of each stage of the project. At the commencement of each student interview, I asked informal questions, such as: “How is today going for you so far?” in order to create a comfortable atmosphere with ease of conversation, and to facilitate rapport.

Interviews were semi-structured in design and were recorded. Questions were constructed for student interviews (Appendix N), to assist with guiding and engaging students in conversation. Guiding questions were related to perceptions about tapping, using the technique, and opinions about the project. In addition, students were invited, during interviews, to offer their reflections of the project and make suggestions for the project’s improvement. Questions were constructed using simple and age appropriate language, and were generally open-ended to generate richer responses.

To mitigate the possibility of students offering responses that they considered were favourable to the interviewer (Hill, 2005; Punch, 2002), open-ended questions were designed. In addition, however, more direct questioning techniques, such as the use of closed questions and prompts, were sometimes necessary due to students’ linguistic or developmental limitations (Irwin & Johnson, 2005). In some cases, after presenting closed questions to students, I offered positive, negative, and neutral responses to provide opportunity for students to choose the most accurate or relevant response, for example, “After tapping, did you notice whether it was easier, or harder, or no different to concentrate on your school work?” This questioning technique was devised to minimise the interviewer leading the
student with responses (Irwin & Johnson, 2005). The duration of student interviews ranged from approximately 10 to 20 minutes.

**Teachers**

In addition to student interviews, teacher interviews were conducted following Stage 1, using semi-structured interview techniques. To guide the Stage 1 interviews, some questions were developed (Appendix O). Questions were devised to elicit responses pertaining to the research questions. Specifically, the guiding questions were related to perceptions about tapping, the effect of tapping for students and themselves, implications for using the technique in schools, and opinions about the project.

Teacher interviews were conducted in focus groups in each of the schools, with one focus group per school. The size of each focus group was, therefore, dependent on the number of teachers and staff within each school who became involved in the research project. In the two schools of multiple classes, only the class teachers attended the focus groups. In the two schools of single classes, the class teachers and additional staff who were associated with the class, participated in the focus groups, shown in Table 5.3.

<table>
<thead>
<tr>
<th>STAGE</th>
<th>School A</th>
<th>School B</th>
<th>School C</th>
<th>School D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

In Stage 1, the staff focus group for School A consisted of the class teacher, teaching assistant, inclusion support assistant, wellbeing specialist and ESL specialist, whereas in Stage 2, participants in School A’s focus group were the teacher and teaching assistant. A
full-time role to Class A was allocated to the teaching assistant, who worked alongside the class teacher for all activities. For this reason, the teaching assistant of Class A was regarded as a teacher participant in this study.

In Stage 1, the focus group for School D consisted of the class teacher and teaching assistant. The teaching assistant of this class was assigned multiple roles and classes, and while her comments were noted in the Stage 1 interview, she was not counted in the overall teacher participant group, and she did not participate in the Stage 2 interview.

Although in larger focus groups—6 or more participants—some individuals may dominate the conversation (Leung & Savithiri, 2009; Nyumba, Wilson, Derrick, & Mukherjee, 2018), the small number of participants in the current study’s focus groups allowed each individual to be included in the conversation. Furthermore, the small number of participants in the focus groups enabled each person to be seated in clear view of each other and myself as the moderator (Nyumba et. al., 2018). In summary, there were a total of nine teachers counted as participants in the study—one teacher per class and the full-time teaching assistant for Class A, who was included as a teacher participant.

Because all interviews were conducted in schools, in spaces chosen by the teachers, the settings for the focus groups were natural and familiar to participants (Nyumba et. al., 2018). As well as gathering information, the interviews provided two-way feedback between the teachers and myself about the project. All interviews were designed to encourage individuals to reflect on the project, and offer ideas for improvements that could be implemented in Stage 2. This evaluative practice is also aligned with action research processes (Beaulieu, 2013). Within each of the teacher focus groups, consensus was achieved for revising and modifying aspects of the whole class tapping program for Stage 2. The duration of each staff interview was around 1 hour, with the exception of School D, which was around 30 minutes for both stages.
5.1.4 Second intervention phase: Introduction of Stage 2

The 4-week tapping program of Stage 1 was repeated the following term—Term 3, and all students were issued with a new project book. As with Stage 1, the commencement date of Stage 2 was negotiated with class teachers, and was scheduled to suit the respective class timetables for the term and researcher availability. Schools A and C commenced Stage 2 in week 3 of Term 3, School D commenced in week 5, and School B commenced in week 6. For all classes, Term 3 was particularly busy, with scheduled activities such as swimming, camp, performances, and athletics carnivals, which disrupted the project schedule. Due to amended class programs and individual teachers’ motivation for the project, some of the planned tapping sessions were not implemented. Tapping sessions were often forgotten or cancelled when classes were not in their usual classrooms for the scheduled tapping times or when students were being taught by specialist or relief teachers.

5.1.5 Second follow-up phase: Data collection; post intervention assessments

Students
All project books and student reflections were collected at the end of Stage 2, and the RCMAS-2 anxiety questionnaire was again administered to all students. As with Stage 1, 24 students were selected for interview at the end of Stage 2; however, only 23 students were present, shown in Table 5.2. Where possible, the same students from Stage 1 were interviewed and, where not possible, other students were either randomly selected or selected by the class teachers. Student interviews were again semi-structured in design and were recorded. Stage 2 guiding questions contained some variations to the prepared Stage 1 interview questions. Different sets of questions guided the interviews for students who were interviewed for the first time, in contrast with students who were previously interviewed (Appendices P and Q).


**Teachers**

Teacher interviews were also conducted following Stage 2, the final stage of the project. Again, interviews were conducted in school focus groups, and the numbers comprising the focus groups varied for most schools, as shown in Table 5.3. For the two schools with multiple classes in the project—Schools B and C—focus groups again included only teachers of project classes. For the two schools with single classes—Schools A and D—the composition of the Stage 2 focus groups varied from Stage 1, with fewer staff participating in the interviews. In School A, the Stage 2 focus group consisted of the class teacher and teaching assistant, and in School D, the interview involved the class teacher only. For Stage 2 interviews, additional questions to those prepared for Stage 1 assisted in guiding the interviews (Appendix R).

The project in schools was completed by the end of Term 3, and certificates were issued to all student participants, and a book was presented to each of the participating classes. In Class C2, the teacher initiated a conversation with the class about the continuation of tapping in class each day, even though the project had finished. The consensus of students in the class was to continue tapping. The discussion about continuing tapping beyond the project period was not raised by teachers in other classes, and tapping was not continued as a class activity in Term 4 in these classes.

5.1.6 End of project: Feedback and reporting to teachers and executive officers

Following completion of both stages of the project, as well as student and staff interviews, I met with each school principal to report on the project and provide some preliminary feedback about the study. Meetings were arranged over the first 3 weeks of Term 4, and some questions (Appendix S) were prepared to guide these meetings. The preliminary feedback I presented included a summary of results of the two RCMAS-2
questionnaires that had been administered, as well as a summary of student and staff feedback. The RCMAS-2 summary consisted of the number of students whose scores increased, decreased, or remained the same. The summary of student and staff feedback included some direct comments by participants in interviews or end-of-stage reflection comments. The summary further included the number of students in each participating class who expressed that tapping was helpful, versus the number of students who expressed that tapping was not helpful. Pseudonyms were used to represent all students. A sample summary document presented to principals is presented in Appendix T.

Upon request by the CE principals’ consultant, I provided feedback on the project to the wellbeing teachers’ group of CE schools as a formal presentation. This group comprised wellbeing and executive teachers from each of the CE schools across the NT. The group also heard directly from one of the CE participant teachers who was invited to present her experience of the project. The teacher showed a video of her class tapping and provided a description of her classroom procedures for tapping. Through this forum, information about the project and students tapping in class was provided to all CE schools from both the researcher and teacher-participant perspectives. Feedback about the project was also provided to the CEO of NTDoE during a meeting initiated by me. In this meeting, the CEO was presented with the two NTDoE schools’ summary feedback information that had been distributed to the school principals, with the principals’ permission.

5.1.7 Variation to research design

In the research design, the RCMAS-2 was proposed to be administered on two occasions—prior to the commencement of the project and at the end of the project. During the project’s implementation period, however, the question of administering the RCMAS-2 on a third occasion, some weeks after students had ceased tapping, was raised during a
meeting of the university’s supervising research team. The purpose of a third administration of this instrument was to ascertain whether anxiety levels of students varied significantly when the daily tapping practice had discontinued. This suggestion was adopted, and the RCMAS-2 was again administered to all students at the end of Term 4, approximately one term after most students had ceased daily class tapping sessions. However, as stated previously, Class C2 continued to tap throughout Term 4 around once or twice a day.

Variation occurred between schools in the timeframes between the end of the tapping project period and the administration of the follow-up questionnaire, due to the project timeframes that classes had adopted during the previous term. For Schools A, B, and D, the time period between the end of the project’s scheduled tapping sessions and the third administration of the RCMAS-2 instrument was 9 weeks and for School C was 12 weeks.

5.2 Data Analysis

5.2.1 Quantitative data analysis

No variations occurred in the data analysis processes presented in the research design in Chapter 4. All student SUWS and RCMAS-2 scores were entered into Microsoft Excel and exported into SPSS for statistical analyses. These analyses are explained in the following chapter: “Quantitative Results.”

5.2.2 Qualitative data analysis

Analysis through reflective dialogue occurred with research participants in the interviews of both stages. Within the action research model that was incorporated into the pragmatic study, teachers reflected on each stage of the project, and collectively decided how to modify elements of the Stage 1 project for implementation in Stage 2. Further reflections
during interviews and focus groups at the completion of the project presented opinions regarding extending tapping in classes and schools.

All interviews were recorded and transcribed verbatim, and more in-depth analyses were conducted after the project had finished. With the exception of two interviews that were transcribed by a volunteer psychology graduate, around half of the interviews were transcribed by me and half by a professional transcription agent. All focus group interviews were transcribed by me to ensure the accurate identification of the speakers in the audio recordings. Given that I had become familiar with the various voices in the interviews, there was less chance of mistaken identity if I transcribed the focus group recordings. I validated all transcriptions by listening to the recordings and verifying the accuracy of the transcriptions, or I made corrections as necessary. This process assisted me to become more familiar with the interviews, through hearing the interviewees’ voices again, with the various expressions of language used, such as intonation, repetition, and pauses.

Notes and reflections written by students were analysed in class groups for relevant concepts. These remarks were written into a document that presented the two broad perspectives of tapping is helpful and tapping is not helpful. This overview enabled me to glean an overall effect of the project after each stage, and served as useful preliminary feedback information for teachers and principals who were eager to know whether tapping was indeed beneficial. Data from the researcher’s journal was treated as secondary data, and was incorporated into corresponding themes derived from primary data sources.

5.2.3 Thematic analysis

Thematic analysis was conducted for the two data groups: teachers and students. Themes were identified with reference to the research questions, and guided by the steps
proposed by Braun and Clarke (2006) for undertaking a thematic analysis. The following sections provide a description of the process undertaken according to these steps.

5.2.3.1 Familiarity with the data

Arguably, familiarity with the data is the most important step in undertaking thematic analysis. Researchers reach decisions based on their understanding and interpretation of the data. Greater familiarity with the data facilitates decision-making that is better informed and more representative of the data.

I conducted all interviews, and was therefore present when students and teachers were reflecting and reporting their experiences of the project. Aside from providing consistency across interviews, my presence in all interviews enabled me to better understand the sentiments expressed, and be receptive to both verbal and non-verbal communication nuances that were displayed.

Listening to the recorded interviews provided me with an opportunity to revisit the interviews and detect dialogue and other conversational features, such as tone and pauses, that may have been overlooked during the interviews. I also transcribed many of the interviews, which provided further familiarity with the data, facilitating either reinforcement or re-interpretation of the content. In particular, I transcribed all focus group interviews to ensure the accurate identification of the speakers in the audio recordings.

Reading through the transcripts was another step initiated to strengthen my familiarity with the data. Finally, many transcripts were re-read and tagged with concepts that participants raised and, in some cases, I listened to interviews, or replayed sections of interviews, multiple times. In addition to the interview data, I read and transcribed the comments of students in their project books or in reflection notes, following each stage of the project.
5.2.3.2 Generation of initial codes

Line-by-line examination of the transcriptions was the first step in generating initial codes. Key concepts, based on the relationship to research questions and other phenomena raised by students and teachers that were relevant to the research topic, were extracted from the student and teacher data sets, and became the initial codes. Concepts comprised actual words used by participants, for example, calming and breathing is good, and these expressions were entered into a table in order of occurrence (Appendices V and X provide examples of coding from the student and teacher data sets respectively). Using the participants’ language at this stage of the thematic analysis process removed the prospect of predetermined concepts being assigned to the data.

Participant names and project stages—Stage 1 or Stage 2—were entered into tables, to keep track of the actual statements of participants, and to revisit interviews as required. Each different concept was assigned a new line in the table. One table for each project stage was created for the student data set, and individual tables were created for each of the teacher transcripts, corresponding to each of the schools, for the separate project stages. This attention to the individual data sets ensured that the analysis of one teacher focus group was not influenced by the concepts that were extracted from the transcripts of other focus groups.

Thirty-seven concepts formed the initial codes generated from the student data, with two concepts left uncoded, and 27 concepts were recorded as codes from the teacher data set, with two concepts left uncoded. Although these uncoded concepts were isolated and unmatched by any other similar notions, they were retained in the coding summary, rather than dismissed or molded to blend with a pre-existing category.

The initial method used for coding the data was applied utilising the qualitative data analysis software, NVivo; however, the digital processing was found to be less engaging than the manual process of reading through printed transcripts line-by-line to identify the concepts.
raised. NVivo processing was therefore discontinued, and coding was undertaken using a thorough manual analysis of all transcripts.

5.2.3.3 Searching for themes

For the student data set, the table comprising initial codes was inspected to uncover overlapping or related concepts. A colour-coding method was used to assist the identification of similar codes. This process required me to re-read some sections of student transcripts to understand the context in which the concept was raised. This action ensured that the concepts expressed by the students, and recorded in the table of initial codes, were allocated to the correct groups, that is, groups that conveyed similar viewpoints. Seven categories were created from the student codes, and the two uncoded concepts remained uncoded. The categories created were: effective, what was good about tapping, thoughts about tapping, doesn’t always work, type and time of tapping, extend tapping, and what I don’t like about tapping.

For the teacher data, several hand-written worksheets contained proposed categories extracted from the initial codes derived. One worksheet per proposed category contained all code entries that matched the proposed category. This process resulted in five categories being created, with three codes that were not allocated to any category.

5.2.3.4 Reviewing themes

The categories that were created for both students and teachers were further analysed to identify similarities and duplication. Familiarity with the data assisted with further refinement of categories. Some tags that were assigned to categories were modified to better describe the presenting data. For example, in the teacher data set, one of the hand-written worksheets contained EFT is enjoyable / valued / beneficial. These words were used because
they were the different expressions of teachers. Review of the concepts and assigned tags resulted in renaming the category to tapping is beneficial. Continued review and comparative analysis resulted in some modifications to the allocation of data to assigned categories, and renaming some category tags.

5.2.3.5 Defining and naming themes

Prior to defining the themes contained in the data, understanding how the established categories fitted in to the study’s broader topic, with the research questions posed, was necessary (Braun and Clarke, 2006). To clarify the relationship of the extracted data to the research questions, a return to the transcripts was required. During this stage of the thematic analysis process, I listened again to recorded interviews and perused student project books. This process enabled me to delve deeper into the data to identify overarching themes that were relevant in answering the research questions posed in the study. Some theme names were created and discarded in the process of identifying themes that I considered were characteristic of the complete data set and that were also contained in the data extracted through the coding and categorising processes. Main themes and sub-themes were identified as representative of the student and teacher data sets, respectively, with capacity to answer the research questions posed in the study.

5.2.3.6 Producing the report

The report containing the thematic analysis is contained within this thesis. Specifically, Chapters 7 and 8 present a full description of the themes and sub-themes related to students and teachers, respectively. Additional presentation of the themes is contained in Chapter 9, “Discussion.” The themes and sub-themes identified through the thematic analysis process were pivotal in answering the research questions posed in this study.
5.3 Summary of Chapter

This chapter has presented the manner in which the research was implemented in the four primary schools. The pragmatic paradigm, as a philosophical construct for this study, supported a relational epistemology, whereby solutions for the research questions were derived in relation to the context of the schools. Furthermore, the pragmatic framework chosen for the study supported investigative approaches that were best suited to studying the research questions. Additionally, the pragmatic framework supported flexibility and modification of approaches from the original research model, which was necessary working in the different school environments. Despite changes that were implemented, the integrity of the research design was maintained as far as possible within the structures of each school and class. This chapter has also provided some insight into undertaking research in dynamic primary school settings.
CHAPTER 6

QUANTITATIVE RESULTS

This chapter reports the statistical analyses undertaken for the student sample in the study and interpretations of the findings. Preceding the presentation of results is a summary of the sample, quantitative measures, and procedures used in the research. Full description of these aspects of the study is provided in Chapter 4, “Methodology.”

6.1 Student Sample

Eight classes from four schools—two Northern Territory Department of Education (NTDoE) and two Catholic Education (CE)—were involved in the research. The sample comprised 138 students in Years 5 and 6. Five classes were recruited from two NTDoE schools, with a total of 83 students, and three classes were recruited from CE schools, with a total of 55 students. Throughout the results chapters of this thesis, the letters A, B, C, and D are used to represent each of the schools in the study. Classes are identified by the respective school letter and, in the case of multiple classes per school, a numeral 1, 2, 3, or 4 is ascribed. The eight classes in the study were comprised of one class from School A, four classes from School B, two classes from School C, and one class from School D.

6.2 Measures and procedures

The Subjective Units of Wellbeing scores (SUWS) and The Revised Children’s Manifest Anxiety Scale - second edition (RCMAS-2) were the two quantitative measures used in the study. SUWS were provided by students before and after each tapping round, along with corresponding words indicating their wellbeing state, such as anxious, not great, or great. These scores and wellbeing states were entered by students into their project books.
The RCMAS-2 was administered to students prior to the commencement of the project and again at the completion of the two 4-week stages of the project. A third administration of the RCMAS-2 was conducted approximately 10 weeks after students had finished the project’s daily tapping sessions. In this study, 96 students completed the RCMAS-2 at Times 1 and 2; 107 students completed the RCMAS-2 at Times 1 and 3; 95 students completed the RCMAS-2 at Times 2 and 3; and 87 students completed the RCMAS-2 at all three times.

Table 6.1 shows the number of student books that were examined for stage of the project. One hundred and thirty-eight students in Stage 1 and 130 students in Stage 2 provided SUWS and wellbeing descriptions in their project books. In each stage of the project, some students were absent for tapping sessions, or did not use the project book, resulting in missing entries.

Table 6.1.

<table>
<thead>
<tr>
<th>Class</th>
<th>A</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
<th>C1</th>
<th>C2</th>
<th>D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>14</td>
<td>22</td>
<td>18</td>
<td>16</td>
<td>13</td>
<td>16</td>
<td>24</td>
<td>15</td>
<td>138</td>
</tr>
<tr>
<td>Stage 2</td>
<td>13</td>
<td>21</td>
<td>17</td>
<td>16</td>
<td>11</td>
<td>15</td>
<td>22</td>
<td>15</td>
<td>130</td>
</tr>
</tbody>
</table>

6.3 Results of the RCMAS-2 Over Time

Table 6.2 presents the means and standard deviations for all students on the RCMAS-2 at the three occasions this instrument was administered. The means diminish over time, indicating that anxiety dissipated across the three terms, or 30 weeks. This decrease in RCMAS-2 over time varied across classes, as shown in Table 6.3.
Table 6.2.

Means and Standard Deviations of RCMAS-2 Scores for all Students on Each Occasion (Time) Administered

<table>
<thead>
<tr>
<th>Time</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50.21</td>
<td>8.37</td>
</tr>
<tr>
<td>2</td>
<td>48.80</td>
<td>8.82</td>
</tr>
<tr>
<td>3</td>
<td>47.76</td>
<td>8.81</td>
</tr>
</tbody>
</table>

Table 6.3.

Means and Standard Deviations of RCMAS-2 Scores on the Three Occasions (1,2,3) Administered in Each Class

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean 1</th>
<th>SD 2</th>
<th>Mean 2</th>
<th>SD 2</th>
<th>Mean 3</th>
<th>SD 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>45.43</td>
<td>10.08</td>
<td>50.36</td>
<td>10.12</td>
<td>46.23</td>
<td>9.33</td>
</tr>
<tr>
<td>B1</td>
<td>50.27</td>
<td>8.37</td>
<td>48.86</td>
<td>8.75</td>
<td>52.82</td>
<td>9.97</td>
</tr>
<tr>
<td>B2</td>
<td>51.41</td>
<td>9.53</td>
<td>48.2</td>
<td>5.79</td>
<td>46</td>
<td>8.4</td>
</tr>
<tr>
<td>B3</td>
<td>51.07</td>
<td>7.94</td>
<td>51</td>
<td>8.38</td>
<td>50.2</td>
<td>9</td>
</tr>
<tr>
<td>B4</td>
<td>50.2</td>
<td>5.94</td>
<td>42.22</td>
<td>6.87</td>
<td>48.67</td>
<td>6.52</td>
</tr>
<tr>
<td>C1</td>
<td>49.94</td>
<td>5.8</td>
<td>48.29</td>
<td>7.93</td>
<td>45.5</td>
<td>6.32</td>
</tr>
<tr>
<td>C2</td>
<td>51.42</td>
<td>7.84</td>
<td>48.75</td>
<td>8.23</td>
<td>46.65</td>
<td>9.54</td>
</tr>
<tr>
<td>D</td>
<td>50.92</td>
<td>1.71</td>
<td>49.67</td>
<td>12.57</td>
<td>47.5</td>
<td>9.34</td>
</tr>
</tbody>
</table>

To ascertain whether this change across time is significant, several analyses were considered. With the first consideration, the data could be subjected to a repeated-measures analysis of variance, or ANOVA. However, because of some complications, this analysis may not be appropriate. First, repeated-measures ANOVAs include only the data from participants who responded at each time. Consequently, if participants did not respond on each occasion, repeated-measures ANOVAs may not be the most statistically powerful method.
Second, because participants were derived from eight distinct classes, across four schools, repeated-measures ANOVAs would violate the assumption that error terms are independent of one another. In this study, the responses of students in the same classroom might be more similar than the responses of students in different classrooms.

A mixed-model linear analysis, also called a multi-level analysis, circumvents the fore-mentioned problems. For the mixed-model linear analysis conducted, RCMAS-2 scores were designated as the criterion, time was designated as a fixed factor, and age was designated as a covariate. Gender was not controlled—when this variable was included, the Akaike Information Criterion increased, indicating that gender was not strongly related to changes in RCMAS-2 across time.

In addition, because students were nested in classrooms, the analysis included both random intercepts and random slopes. In particular, these random factors were entered across two steps. The first step included random intercepts and random slopes across the classrooms. The second step included random intercepts and random slopes across the students nested in classrooms. Maximum likelihood was utilized to estimate the B coefficients.

Furthermore, in this analysis, an Heterogenous Toeplitz matrix was utilized to represent the covariances across these random intercepts and random slopes in each step. This matrix was deemed appropriate because the intercept primarily reflects baseline differences in anxiety across the classes and students. Presumably, these baseline differences correlate higher with random slopes at Time 1 and correlate less with random slopes at Time 3. In addition, the correlation between the random slopes should be stronger between consecutive than non-consecutive times. Finally, to facilitate interpretation, Time 1 was designated as the reference.
Table 6.4 presents the B coefficients that this model generated. This analysis revealed that RCMAS-2 does differ significantly across time. In particular, the negative B values associated with Times 2 and 3 indicate that RCMAS-2 was highest in Time 1. Only the term associated with Time 3 is significant, indicating that RCMAS-2 was significantly lower in Time 3, but not significantly lower in Time 2, relative to Time 1. Appendix U presents the covariances between the random effects across classes and across students within classes.

Table 6.4.
Output from the Mixed-Model Linear Analysis With Random Effects to Explore Whether RCMAS-2 Diminished Over Time

<table>
<thead>
<tr>
<th>Parameter</th>
<th>B coefficient</th>
<th>Standard error</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>63.48</td>
<td>13.44</td>
<td>4.72***</td>
</tr>
<tr>
<td>Time 1</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 2</td>
<td>-2.09</td>
<td>1.26</td>
<td>-1.65</td>
</tr>
<tr>
<td>Time 3</td>
<td>-2.70</td>
<td>1.30</td>
<td>-2.08*</td>
</tr>
<tr>
<td>Age</td>
<td>-1.21</td>
<td>1.24</td>
<td>-.98</td>
</tr>
</tbody>
</table>

* p < .05, *** p < .001

a Indicates the parameter was redundant and thus set to 0.

This mixed-model linear analysis, however, did not yield specific insights about each class. Because other information about each class was collated, insights were considered useful. A second approach, therefore, was applied to explore whether changes in RCMAS-2, over time, varied across the classes. For this mixed-model linear analysis, the RCMAS-2 scores were again designated as the criterion, and time was designated as a repeated-measures factor. An Heterogenous Toeplitz T matrix was selected to represent the covariance between the times across students. In this instance, both time and class were
designated as fixed factors. The interaction between these factors was included in the model, and age was included as a covariate; however, no random effects were included.

Table 6.5 presents the B coefficients this model generated. This analysis again showed that RCMAS-2 diminished over time, but this effect significantly varied across the classes. For example, the positive coefficient associated with the interactions between Time 3 and three of the classes, indicates the usual decrease in RCMAS-2 over time was limited in these classes. Likewise, the positive coefficient associated with the interactions between Time 2 and one of the classes indicates the usual decrease in RCMAS-2 over time was limited in this class. The estimates of covariance parameters were 69.32 (std error = 6.74) for the diagonal, as well as .67 (std error = .044), and .57 (std error = .063) for ρ1 and ρ2 respectively.

Table 6.5.

Output from the Mixed-Model Linear Analysis to Explore Whether Changes in RCMAS-2 Over Time Varied Significantly Across Classes

<table>
<thead>
<tr>
<th>Parameter</th>
<th>B coefficient</th>
<th>Standard error</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>63.63</td>
<td>12.72</td>
<td>5.00***</td>
</tr>
<tr>
<td>Time 1</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 2</td>
<td>-3.36</td>
<td>1.46</td>
<td>-2.31*</td>
</tr>
<tr>
<td>Time 3</td>
<td>-5.49</td>
<td>1.67</td>
<td>3.28**</td>
</tr>
<tr>
<td>Class</td>
<td>-3.08</td>
<td>8.57</td>
<td>-.36</td>
</tr>
<tr>
<td>Class A</td>
<td>-1.03</td>
<td>2.46</td>
<td>-.42</td>
</tr>
<tr>
<td>Class B</td>
<td>-6.08</td>
<td>2.74</td>
<td>-2.22*</td>
</tr>
<tr>
<td>Class C</td>
<td>.38</td>
<td>2.76</td>
<td>.14</td>
</tr>
<tr>
<td>Class D</td>
<td>1.53</td>
<td>2.93</td>
<td>.52</td>
</tr>
<tr>
<td>Class</td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Class E</td>
<td>.09</td>
<td>2.63</td>
<td>.04</td>
</tr>
<tr>
<td>Class F</td>
<td>-2.69</td>
<td>3.09</td>
<td>-.87</td>
</tr>
<tr>
<td>Class G</td>
<td>-1.60</td>
<td>2.69</td>
<td>-.59</td>
</tr>
<tr>
<td>Class H</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 3 x Class A</td>
<td>7.67</td>
<td>2.46</td>
<td>3.12**</td>
</tr>
<tr>
<td>Time 3 x Class B</td>
<td>6.05</td>
<td>2.64</td>
<td>2.29*</td>
</tr>
<tr>
<td>Time 3 x Class C</td>
<td>1.38</td>
<td>2.84</td>
<td>.49</td>
</tr>
<tr>
<td>Time 3 x Class D</td>
<td>1.03</td>
<td>2.78</td>
<td>.37</td>
</tr>
<tr>
<td>Time 3 x Class E</td>
<td>-.07</td>
<td>2.56</td>
<td>-.03</td>
</tr>
<tr>
<td>Time 3 x Class F</td>
<td>6.68</td>
<td>3.20</td>
<td>2.09*</td>
</tr>
<tr>
<td>Time 3 x Class G</td>
<td>-.37</td>
<td>2.62</td>
<td>-.14</td>
</tr>
<tr>
<td>Time 3 x Class H</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 2 x Class</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 2 x Class A</td>
<td>1.98</td>
<td>2.25</td>
<td>.88</td>
</tr>
<tr>
<td>Time 2 x Class B</td>
<td>6.95</td>
<td>2.39</td>
<td>2.91**</td>
</tr>
<tr>
<td>Time 2 x Class C</td>
<td>1.83</td>
<td>2.54</td>
<td>.72</td>
</tr>
<tr>
<td>Time 2 x Class D</td>
<td>.20</td>
<td>2.47</td>
<td>.08</td>
</tr>
<tr>
<td>Time 2 x Class E</td>
<td>-2.86</td>
<td>2.51</td>
<td>-1.14</td>
</tr>
<tr>
<td>Time 2 x Class F</td>
<td>-1.18</td>
<td>2.85</td>
<td>-.41</td>
</tr>
<tr>
<td>Time 2 x Class G</td>
<td>1.33</td>
<td>2.34</td>
<td>.57</td>
</tr>
<tr>
<td>Time 2 x Class H</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1 x Class A</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1 x Class B</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1 x Class C</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1 x Class D</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cluster Analysis

One possible explanation for the limited effects is that responses to the program may vary appreciably across the students. For example, some students may have improved in emotions steadily over time, while other students may have fluctuated in their emotional states. A cluster analysis, therefore, was conducted to differentiate these potential clusters.

Number of Clusters

To determine the number of clusters, the numerical or binary measures—such as age, gender, RCMAS-2 scores at each time, and the indices that emerged from the student project books—were subjected to a series of k-means cluster analyses. Each analysis corresponded to a different number of clusters, ranging from 2 to 8.

To ascertain the optimal number of clusters, a series of seven multinomial logistic regression analyses was conducted. For the first logistic regression analysis, the dependent or grouping variable was the cluster in which the participants were assigned, as derived from the k-means cluster analyses when the number of clusters was restricted to two. The covariates included all the numerical and binary measures. The other six logistic regression analyses were identical, except the group variable comprised 3 to 8 clusters respectively. Each of

<table>
<thead>
<tr>
<th>Time 1 x Class E</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>-1.12</td>
</tr>
<tr>
<td>Time 1 x Class F</td>
<td>a</td>
</tr>
<tr>
<td>Time 1 x Class G</td>
<td>a</td>
</tr>
<tr>
<td>Time 1 x Class H</td>
<td>a</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, *** p < .001

a Indicates the parameter was redundant and thus set to 0.
these analyses generated a Cox and Snell $R^2$ estimate, a measure that roughly represents the extent to which the clusters explain variation in the other measures. Figure 6.1 presents the association between this Cox and Snell $R^2$ estimate and the number of clusters.

![Graph showing association between Cox and Snell $R^2$ estimate and the number of clusters](image)

*Figure 6.1. Association between Cox and Snell $R^2$ estimate and the number of clusters*

To determine the optimal number of clusters, the elbow method was used. The elbow is identified according to the abrupt change in $R^2$ value. In this instance, the elbow corresponds to three clusters. Hence, the participants can most likely be classified into three clusters.

**Comparison of the clusters**

Table 6.6 presents the means and standard deviations of the various measures and indices in each cluster. The mean values for each of the clusters decreased on each occasion of RCMAS-2 administration, with the exception of Cluster 1 in relation to the third administration of RCMAS-2. A multivariate analysis of variance, or MANOVA, showed the measures did differ significantly across the clusters, Wilks $\lambda = .076$, $F(32, 98) = 8.06$, $p < .001$. 
Table 6.6.

Means and Standard Deviations of the Various Measures and Indices in Each Cluster

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>M = 10.84, SD = .53</td>
<td>M = 10.64, SD = .68</td>
<td>M = 10.85, SD = .53</td>
<td>1.447</td>
<td>.239</td>
</tr>
<tr>
<td>RCMAS-2-1</td>
<td>43.91, 5.91</td>
<td>61.4, 5.57</td>
<td>50.1, 5.56</td>
<td>75.002</td>
<td>.000</td>
</tr>
<tr>
<td>RCMAS-2-2</td>
<td>38.07, 3.57</td>
<td>59.61, 5.84</td>
<td>50, 3.95</td>
<td>161.885</td>
<td>.000</td>
</tr>
<tr>
<td>RCMAS-2-3</td>
<td>39.15, 4.53</td>
<td>58.58, 5.8</td>
<td>48, 5.77</td>
<td>94.188</td>
<td>.000</td>
</tr>
<tr>
<td>Tap_effect1</td>
<td>.2, 25</td>
<td>.09, 31</td>
<td>.21, 27</td>
<td>1.770</td>
<td>.174</td>
</tr>
<tr>
<td>Time_effect1</td>
<td>.04, .24</td>
<td>.03, .2</td>
<td>.06, .19</td>
<td>.249</td>
<td>.780</td>
</tr>
<tr>
<td>Tap_x_time_effect1</td>
<td>.02, .14</td>
<td>.04, .07</td>
<td>0, .09</td>
<td>.249</td>
<td>.780</td>
</tr>
<tr>
<td>Day1</td>
<td>.02, .06</td>
<td>.03, .06</td>
<td>.02, .04</td>
<td>1.054</td>
<td>.351</td>
</tr>
<tr>
<td>Residual1</td>
<td>.89, .12</td>
<td>.85, .17</td>
<td>.91, .18</td>
<td>1.152</td>
<td>.319</td>
</tr>
<tr>
<td>Tap_effect2</td>
<td>.03, .42</td>
<td>.09, .32</td>
<td>.12, .39</td>
<td>.471</td>
<td>.626</td>
</tr>
<tr>
<td>Time_effect2</td>
<td>-.15, .87</td>
<td>.17, .31</td>
<td>.05, .32</td>
<td>2.249</td>
<td>.111</td>
</tr>
<tr>
<td>Tap_x_time_effect2</td>
<td>-.03, .28</td>
<td>-.05, .22</td>
<td>-.01, .27</td>
<td>.154</td>
<td>.858</td>
</tr>
<tr>
<td>Day2</td>
<td>.04, .11</td>
<td>.01, .13</td>
<td>.04, .07</td>
<td>.554</td>
<td>.576</td>
</tr>
<tr>
<td>Residual2</td>
<td>.82, .32</td>
<td>.9, .28</td>
<td>.78, .33</td>
<td>1.268</td>
<td>.285</td>
</tr>
</tbody>
</table>

Each of these measures was subjected to a separate analysis of variance or ANOVA. In particular, Table 6.6 presents the $F$ values and significance levels associated with each measure. Table 6.6 indicates that the measures of RCMAS-2 at each time differed significantly across the clusters. A Tukey test showed that RCMAS-2, at each time, differed between each pair of clusters.

As these results indicate, Cluster 1 comprises students with the lowest levels of anxiety. In addition, these students benefited most from the two stages of the tapping...
intervention, diminishing in anxiety by 5 units. Clusters 2 and 3 comprise students with high and moderate levels of anxiety respectively, and neither cluster benefited as appreciably from the intervention. Consistent with this pattern, a repeated measures ANOVA showed that differences across the 3 times on the RCMAS-2 did differ significantly across the three clusters, regardless of whether the Huynh-Feldt correction was included, $F(3.8, 68.2) = 2.621, p < .05$.

Furthermore, a sequence of $\chi^2$ tests of independence was conducted to ascertain whether gender, year level, school, and class differed across the clusters. Neither gender nor class differed significantly across the clusters, $\chi^2(2) = .67, p > .05$ and $\chi^2(16) = 2.97, p > .05$ respectively. However, year level did differ across the clusters as shown in Table 6.7. The Year 5 students, rather than the Year 6 students, tended to belong to Cluster 2—the cluster that corresponds to the high levels of anxiety, $\chi^2(2) = 7.66, p < .05$.

Similarly, school representation varied across the clusters, $\chi^2(6) = 13.36, p < .05$, as shown in Table 6.8. For example, although the sample size is small, the students in School D were more likely to be members of the least anxious or most anxious clusters.

Table 6.7.
Tests of Independence Showing Year Levels Across the Clusters

<table>
<thead>
<tr>
<th>Year Level</th>
<th>$n$</th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td></td>
<td>11</td>
<td>11</td>
<td>9</td>
<td>31</td>
</tr>
<tr>
<td>% within Year level</td>
<td>35.5%</td>
<td>35.5%</td>
<td>29.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Year 6</td>
<td></td>
<td>33</td>
<td>17</td>
<td>57</td>
<td>107</td>
</tr>
<tr>
<td>% within Year level</td>
<td>3.8%</td>
<td>15.9%</td>
<td>53.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Total students</td>
<td></td>
<td>44</td>
<td>28</td>
<td>66</td>
<td>138</td>
</tr>
<tr>
<td>% within Year level</td>
<td>31.9%</td>
<td>20.3%</td>
<td>47.8%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
Table 6.8.

Tests of Independence Showing School Representation Across the Clusters

<table>
<thead>
<tr>
<th>School</th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>% within School</td>
<td>35.7%</td>
<td>14.3%</td>
<td>50.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>B</td>
<td>20</td>
<td>13</td>
<td>36</td>
<td>69</td>
</tr>
<tr>
<td>% within School</td>
<td>29.0%</td>
<td>18.8%</td>
<td>52.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>C</td>
<td>12</td>
<td>6</td>
<td>22</td>
<td>40</td>
</tr>
<tr>
<td>% within School</td>
<td>30.0%</td>
<td>15.0%</td>
<td>55.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>D</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>% within School</td>
<td>46.7%</td>
<td>46.7%</td>
<td>6.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>28</td>
<td>66</td>
<td>138</td>
</tr>
<tr>
<td>% within School</td>
<td>31.9%</td>
<td>20.3%</td>
<td>47.8%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

6.4 Results of the SUWS Analysis and Words

Table 6.9 presents the correlation matrix of the number of times students specified anxious or not great and the various indices. The number of times students indicated they felt anxious, but not the number of times students indicated they felt not great, in general, was positively related to the effect of tapping.

Table 6.9.

Correlation Matrix of the Number of Times Students Specified Anxious and Not Great and the Various Indices

<table>
<thead>
<tr>
<th></th>
<th>Anxious</th>
<th>Not Great</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tap_Effect1</td>
<td>Pearson Correlation</td>
<td>.323**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.003</td>
<td>.409</td>
</tr>
<tr>
<td>N</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Time_effect1</td>
<td>Pearson Correlation</td>
<td>.036</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.744</td>
<td>.280</td>
</tr>
<tr>
<td>N</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Tap_x_time_effect1</td>
<td>.093</td>
<td>.097</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.403</td>
<td>.383</td>
</tr>
<tr>
<td>N</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Day1</td>
<td>Pearson Correlation</td>
<td>-.082</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.463</td>
<td>.851</td>
</tr>
<tr>
<td>N</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Residual1</td>
<td>Pearson Correlation</td>
<td>-.186</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.092</td>
<td>.815</td>
</tr>
<tr>
<td>N</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Tap_effect2</td>
<td>Pearson Correlation</td>
<td>.157</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.173</td>
<td>.284</td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>Time_effect2</td>
<td>Pearson Correlation</td>
<td>-.120</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.299</td>
<td>.861</td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>Tap_x_time_effect2</td>
<td>Pearson Correlation</td>
<td>-.025</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.823</td>
<td>.260</td>
</tr>
<tr>
<td>N</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Day 2</td>
<td>Pearson Correlation</td>
<td>.070</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.539</td>
<td>.881</td>
</tr>
<tr>
<td>N</td>
<td>79</td>
<td>79</td>
</tr>
<tr>
<td>Residual2</td>
<td>Pearson Correlation</td>
<td>-.076</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.504</td>
<td>.170</td>
</tr>
<tr>
<td>N</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

* * p < .01 (2-tailed)

Hence, if students often specified they were anxious in particular, their mood was especially likely to be better after tapping than before tapping. The effects of time of day or date were not significantly associated with word use.

The SUWS of each participant were subjected to a set of analyses to generate indices that reflected the degree to which emotions were affected by tapping, time of day, and experience with tapping. In particular, the SUWS of each participant were subjected to a separate regression analysis. For each analysis, the criterion was the SUW score. The first
predictor represented whether the SUWS were recorded before or after tapping. Therefore, the corresponding B value reflected the effect of tapping on SUWS. The second predictor represented whether the SUWS were recorded early or late in the day. The corresponding B value, therefore, reflected the effect of time of day. The third predictor represented the number of days the participant had already completed tapping, for example, a 7 corresponded to SUWS recorded on the eighth day of tapping.

Furthermore, two other indices were extracted from the regression. In particular, the product of tapping and time were also included in the regression. This B value reflected whether the effect of tapping varied across the time of day. Finally, the residual of each regression equation represented the extent to which the SUWS vary, after controlling the other predictors. This residual thus represented sporadic SUWS. For each participant, five indices were computed twice: the first corresponded to the SUWS during Stage 1, and the second corresponded to the SUWS during Stage 2 of the project. In short, each participant was assigned ten indices, derived from the SUWS. These indices were then entered into the cluster analysis.

6.5 Summary of Chapter

This chapter has provided the quantitative findings for the research and the statistical processes and explanations for deriving the results. The findings showed the RCMAS-2 scores diminished significantly over time—the highest anxiety scores were found in Time 1 and the lowest in Time 3—and this effect varied significantly across classes. A cluster analysis showed significant differences across the three clusters—low, moderate, and high anxiety—with students in the low anxiety cluster benefitting most from the two stages of the tapping intervention. Differences were also found across year levels, with more Year 5 students than Year 6 students belonging to the cluster representing high anxiety levels.
Furthermore, school representation varied across the clusters. The SUWS analysis showed a positive relationship between the number of times students indicated they felt anxious and the immediate benefits of tapping.
CHAPTER 7
QUALITATIVE RESULTS: WHAT DO STUDENTS SAY?

This chapter and the following chapter report the qualitative findings of the study. The current chapter presents the themes derived from student responses about The Tapping Project (the project), and the following chapter presents themes derived from teacher reflections, interviews, and feedback. Pseudonyms are used for students and teachers, and the letters A, B, C, and D are used to represent each of the schools in the study. Classes are identified by the respective school letter and, in the case of multiple classes per school, a numeral 1, 2, 3, or 4 is ascribed. Stage 1 and Stage 2 are represented by S1 and S2 respectively. The name Margaret, used in interview excerpts, represents me as the researcher.

Central to this research are students’ perceptions surrounding tapping. The study seeks to understand whether Emotional Freedom Techniques (EFT), also known as tapping, is a useful technique that can be used in the class environment to assist student wellbeing. Hearing from students directly is foundational to understanding their experiences and views about tapping. In providing an analysis of students’ experiences and perceptions of using EFT throughout both stages of study, this chapter draws on the actual comments of students, including statements that may elaborate on the questions posed in interviews. The qualitative data for student experiences comprised responses gathered in interviews, end-of-stage reflections, and comments written in the tapping books, as well as observations of teachers and myself about students throughout the project. As presented in Chapter 5, Table 5.2, 24 students were interviewed in Stage 1, and 23 students were interviewed in Stage 2. In addition, as presented in Chapter 6, Table 6.1, 138 students provided SUWS and wellbeing
descriptions in Stage 1, and 130 students provided SUWS and wellbeing descriptions in Stage 2.

Preliminary feedback was provided to schools at the completion of the project before the end of the school year. Even though full analysis was not completed, I believed I needed to provide preliminary feedback to principals and participants before the end of year vacation period, before the transition of Year 6 students to middle schools, and before the relocation of teachers and principals to other schools or opportunities. Preliminary feedback consisted of the number of students in each class who expressed tapping was helpful or not helpful, as shown in Table 7.1. The majority of students, in both stages, expressed the opinion that tapping was helpful. The exception to this pattern is class C1 in Stage 2, where most students wrote, in their end-of-stage reflections, that tapping was either boring or not helpful, and this anomaly is discussed later in this chapter, in section 7.3, “Tapping is not always effective,” and further in Chapter 9, “Discussion.”

Table 7.1.

*Number of Student Comments, by Class, Showing Tapping is Helpful or Not Helpful*

<table>
<thead>
<tr>
<th>School/Class</th>
<th>Stage</th>
<th>Total Responses</th>
<th>Helpful</th>
<th>Not Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>8</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>B1</td>
<td>1</td>
<td>14</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>B2</td>
<td>1</td>
<td>14</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>B3</td>
<td>1</td>
<td>14</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>B4</td>
<td>1</td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>C1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>C2</td>
<td>1</td>
<td>24</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>15</td>
<td>13</td>
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</tr>
<tr>
<td>A</td>
<td>2</td>
<td>9</td>
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<td>4</td>
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<tr>
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<td>3</td>
<td>3</td>
<td>0</td>
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<tr>
<td>B2</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>B3</td>
<td>2</td>
<td>5</td>
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<td>1</td>
</tr>
</tbody>
</table>
In general, students reported a range of improvements from using tapping, and these comments were summarised in the preliminary feedback for schools (Appendix T) as helpful. Some of the positive benefits of tapping that students reported were: increased sense of calm and relaxation; reduced anxiety, nervousness and stress; improved focus and concentration; improved sense of confidence; feeling happier; and reduced physical symptoms of discomfort. In contrast, a few students responded that tapping did not work for them, or was boring, or a waste of time, or, in some cases, amplified negative feelings, and these comments were grouped in the initial feedback for schools as not helpful.

Following the assembled summary of student responses, a thematic analysis, as described in Chapter 5, was conducted. This analysis entailed the identification of preliminary codes of student experiences from a thorough inspection of the data. In summary, a line-by-line examination of student transcripts identified 37 concepts across the data set (Appendix V). These concepts were used as code labels and reflected actual words and phrases expressed by students. Codes containing similar concepts were grouped into categories, reducing the student data to seven groups (Appendix W). A word or phrase that was representative of each group became the category labels. The seven category labels assigned were: effective, what was good about the project, thoughts about tapping, tapping doesn’t always work, type and time of tapping, extend tapping, and what I don’t like about tapping. Further analysis to determine the most appropriate themes representative of the data, and relevant to the research questions, was undertaken from further examination of the student data set—the transcripts and audio versions of student interviews, the additional
comments of the students, my own notes, and teacher interviews. I considered teachers’
direct observations of students were relevant to the student data set, and these were reported
by teachers during interviews and informal conversations between the researcher and
teachers. Teachers’ observations, along with teacher perceptions, are presented in the
following chapter of this thesis, “Qualitative Results: What do teachers say?” The themes
chosen from the student data set were identified with reference to the research questions.

Thematic analysis of students’ perceptions and experiences produced three main
themes and seven sub-themes. The first main theme that was identified from inspection of
the data was tapping as a mechanism for change, with sub-themes affective change, cognitive
change: confidence and academic focus, and physical change. The second main theme
identified was transferability of skills, with two contextual sub-themes in school and outside
school, and a third sub-theme, communicating knowledge. The third main theme identified in
the data was tapping is not always effective, with sub-theme, contradictions. These main
themes and sub-themes are discussed in the following sections of this chapter.

7.1 Main Theme 1: Tapping as a Mechanism for Change

The objective of any intervention is to effect change. Because the research purpose
was to evaluate EFT as an intervention for student wellbeing, all references to change were
considered important data that were relevant to the study. Change is also integral to the
pragmatic paradigm (Cherryholmes, 1992; Morgan, 2014), with the goal of finding solutions
to practical problems (Oquist, 1978; Shannon-Baker, 2016). For this study, the problem
under investigation was impaired student wellbeing, and the desired solution was noticeable
improvements in wellbeing. Tapping, as the means by which noticeable improvements may
be attained, was the focus of this inquiry.
Tapping as a mechanism for change was chosen as the dominant theme, and is presented as the first main theme because of the many ways in which change appeared in the student data set and the significance of change in the research topic and research paradigm. Both positive and negative aspects of change, as well as no change, were considered important responses in the study, to ensure accurate analysis of student experiences and an informed evaluation of tapping for students in primary schools.

Students experienced change in their affective, cognitive, and physical states after tapping. Some of the positive changes that were identified by students were: feeling calmer, feeling more focused on their task, feeling more confident, and feeling reduced physical discomfort. The three dimensions of change—affective, cognitive, and physical—were therefore chosen as sub-themes of the dominant theme. In addition to those students who reported positive change, a smaller number of students experienced no change, and stated that tapping did not work for them. Even though most students experienced change in various ways, tapping was not effective on each occasion. Students stated there were some days or parts of days when they felt that tapping worked better for them than on other occasions, and there were some occasions when students perceived that the tapping did not result in any change.

7.1.1 Affective change

Feeling calmer after tapping was the most common response from students across all classes in both stages. Various words and phrases were used by students that I have interpreted as synonymous with calm. For example, students used words and phrases such as relaxed, less stressed, chilled, chill-out, pipe down, and helps with stress and nervous feelings. In addition, many students expressed a particular time of day when tapping seemed especially effective, and preferred to tap at these times rather than at the other scheduled
times. The preferred tapping times varied across schools and within class groups. In Stage 1, tapping was scheduled for all students early in the morning when school began, as well as after recess and after lunch. Most students preferred tapping after recess or after lunch because this activity calmed them down after running around in the playground, or from any problems that may have arisen during the recess and lunch breaks:

Maddie (Class B1, S1): *It helps me calm down when I’m angry. In the afternoon and just after recess [is better] because it’s later in the day and when it’s later in the day you feel a bit tired and you get angry and sad easier, so it helps you calm down when you do it.*

Adele (Class D, S2): *I felt calmer after recess and lunch and I felt like we could just do it instead of being silly—’cause it’s kind of like a calming down thing when we’ve just gone and had play time.*

Samantha: (Class D, S2) : *I reckon it was okay and it kind of helped me like to calm down after recess and lunch and that. I don’t really feel like it helped me in the morning and that—I felt like it was just the same after tapping. [It helped me] just to pipe down, ’cause after recess and lunch I’m always all active and want to be doing sports and that.*

Amy (Class C2, S1): *After recess and lunch, it would be like—it would calm me down after playing soccer or rugby. It’d help settle me, or when I was feeling a bit down, it would help me put my score up a little bit... and other times, like I’ve been using the tapping before my rugby games.*
Comments of students in their project books also supported the statements of students during interviews that tapping helped to calm them:

Kitti (Class B3, S1): *After recess I am anxious because stuff happened at recess and I am really stressed, and I feel good [after tapping].*

Ann (Class B2, S1): *Tapping was super useful for me when I did it. It made me feel calm, relaxing and simple, but I found out if I tap my forehead, it released more stress than any other tapping position.*

Some students, however, stated that tapping in the mornings was preferable:

Tina (Class C1, S1): *In the morning, ’cause I’m tired, ’cause I get on the bus and Mum wakes me up and it’s just—I’m really tired, and when I get to school, it’s just like—oh, I feel like I have to go to sleep, but the tapping has woken me up—[the tapping that] we do in the class.*

Amy (Class C2, S1): *In the mornings, we do it as well—like in the mornings I’m feeling a bit tired, so I kind of wake myself up when I do the tapping.*

These students used the term waking up to indicate the way in which they felt better after tapping. Prior to tapping, Tina and Amy stated they felt tired, which appears to be associated with lethargy. Feeling tired or lethargic may be considered similar to feeling calm; however, feeling lethargic is regarded as a negative manifestation of low arousal affect, as opposed to
feeling calm, which is considered to be a positive manifestation of low arousal affect (Tompkins, Bjälkebring, & Peters, 2018).

Beyond their own responses, some students suggested that individuals or the class seemed calmer after class tapping sessions. Tina was absent when tapping was introduced to the class. She returned to school and learnt about tapping from her teacher, who explained the project during one of the class tapping sessions:

Tina (Class C2, S1): *It was really—it was good. It calmed me down a lot. [At first] I was thinking... okay, this looks easy and it looks like it’s calming down the whole class—like sometimes when we come back from recess we’re all noisy and stuff, and when we do it, the noisiness goes down and becomes quiet.*

Alex (Class D, S1): *In Term 1, we just go in normally, just silent reading, which doesn’t really do much because all that people do is pretend that they’re reading, and talk. And then we just go to the mat, normally do maths after recess, and so we’d have kind of no control over ourselves. But Term 2, when tapping started, we—like same after recess—after tapping we’d do maths, and I feel like everyone was a lot calmer—you know, getting their books out, discussing with the person next to them what we’ve done recently. And I felt like there wasn’t much noise... I think the tapping—the few people that often cause chaos, you could say—me, kind of—yeah, I think we’re a lot quieter.*

Consistent with this sub-theme, feeling calmer after tapping is a common response that individuals express in my clinical practice and is consistent with previous research on EFT (Boath et al., 2017; Boath et al., 2012; Clond, 2016; Gaesser & Karan, 2017; Sezgin &
Ozcan, 2009). Among these studies are a meta-analysis involving adult and child participants, a narrative systematic review inclusive of young individuals and student participants, and a study of high-ability students in middle and high schools, all of which have been described in Chapter 3, “Energy Psychology and Emotional Freedom Techniques (EFT).”

### 7.1.2 Cognitive change: Confidence and academic focus

This sub-theme describes the changes that students reported about their mental states after tapping and their perceptions about the effects of tapping on their academic performance. Some students felt they could concentrate or focus better on their school work after tapping, and some students reported a greater sense of confidence related to academic work or to other areas of performance. Relationships between improved focus and concentration, greater confidence, and improved performance was also broached by some students. Beyond academic performance, some students noted that tapping improved their performance in other activities, which is discussed later in this chapter within the theme, *transferability of skills*, further demonstrating links between main themes as well as sub-themes of the student data.

Some students connected affective changes, such as feeling happier or calmer, with cognitive shifts—for example, increased confidence or focus on class work:

Geraldine (Class C1, S1): *Sometimes I did my stuff, like my work, and then we did the tapping and then we did the work, and I find out—because when we do our work it’s kind of confusing and frustrating, and then when we were tapping, it was much easier to focus on things.*
Abby (Class B1, S1): Before a couple of days ago, there was this festival going on and the first time I was about to dance, I got really nervous so I just did the tapping with my fingers (showing me the secret tapping) and no one noticed, and it made me confident to dance in front of all those people in the ground, and it helped.

Alfred (Class C2, S2): I enjoyed doing it as a class, and sometimes we would go up in front of everyone and lead the tapping... [It was good] because it builds up your courage to go in front of the class and just lead them.

Simon (Class B3, S1): I do [tapping] in class. Honestly, when we do our writing time and me and my friend Ronny have writing competitions—who can write the most and who can write the best story... and when, when we’re in the not exciting bits, I kind of run out of ideas and I get really frustrated, so I do tapping to calm myself down and rethink it.... Yes it does help, because like my ideas start thinking when I really calm down and I try and get myself back into another action bit where I write three or four pages in five minutes. I find it really easy to do spelling and maths now.

Alex (Class D, S1): There’s a lot of stuff in Grade 5 that I don’t know, and the stuff like—I barely knew anything about angles or algebra or anything like that, and so when we got to the point of doing it, it was very hard for me because—like I’ve never learnt it in class. And then tapping came and it just feels like I can process things a lot easier and quicker.

Adele (Class D) and Tina (Class C1) related their improvement in academic grades to the class tapping sessions:
Adele (Class D, S2): Currently I’ve been getting like Bs and Cs instead of like a D or something. It’s helped me, like keeping my focus.

Tina (Class C1, S2): It’s worked a lot when we did tapping, like ’cause we’d kind of like forgotten through the first week, ’cause we haven’t done it in a while, so when we got back into it we went – after tapping we’d usually do maths or literacy and yeah, it does (help) – I’m getting better grades.

Previous research has also found that EFT has improved students’ focus and academic performance, although none of these studies involved primary school students. A study conducted by Sezgin and Özcan (2009) found that high school students in Turkey who were ranked high on a test anxiety inventory performed better after an EFT intervention than they did prior to the intervention on sample examinations. Students also scored lower on the test anxiety inventory subscales emotionality and worry following the EFT intervention. Other studies have also shown that EFT may be effective in reducing test anxiety (Benor et al., 2009; Jain & Rubino, 2012), although these studies have not shown a correlation between reduced test anxiety and improved academic performance. High levels of anxiety can impair individual performance (Cross, Goharpey, Laycock, & Crewther, 2019), and the previous comments of students demonstrate their perceptions that, when they felt calmer, they were better able to focus on their class work and achieve better outcomes.

7.1.3 Physical change

Changes in physical symptoms after tapping were reported by some students. In the Stage 2 interview, Ann stated that she used tapping in the playground:
(Ann, Class B2, S2): I wasn’t feeling too well, [and tapping] made me feel less sick in the stomach.

Ben (Class B2) and Kendrick (Class C2) were students who noticed the connection between affective, cognitive, and physical states. Ben identified the physical dimension of his stress and the relationship to the cognitive function of focus. Kendrick also observed a relationship between his physical symptoms and the psychological cognitive dimension of confidence, with a higher level of confidence associated with positive self-talk:

Ben (Class B2, S1): When I’m stressed, my hands shake but after tapping, they stopped shaking and it’s easier to do my class work ’cause I can—my head’s clear.

Kendrick (Class C2, S1): On sports day, I was nervous before my race and I started tapping and the butterflies went away. [I was] more confident, saying like: “I can do this” instead of “I’m going to lose.”

In Stage 2, however, Kendrick expressed a different perception about tapping and stated that he did not like this activity because tapping was ineffective. This contradiction, along with some others that appeared in the data, are further explored in this chapter, in section 7.3.1, “Contradictions.”

In contrast to the majority of student comments in Stage 1, Jack from School A, stated that he did not like tapping at all because of the uncomfortable physical feeling he noticed: “I feel like, sort of weirdish... I’d get a little bit dizzy.” Jack also noted that this feeling occurred only sometimes and would pass quickly; nevertheless, he did not like the feeling and he did not want to continue tapping.
Aria (Class B4) is a Year 5 student in a class which specialises in teaching English as a second language. In the Stage 1 interview, Aria stated that, because she was Chinese, she already knew the significance of some of the body points that were being used in the tapping protocol. She noted further that applying pressure to these points could relieve physical discomfort. The following dialogue occurred between the researcher and Aria during project interviews:

Margaret: *What were your thoughts about doing tapping when I explained it the first time?*

Aria: *Oh, I’m from China and it’s all about China and Chinese doctors, so I already know those parts are helpful and I already learn Chinese, those [points] and those parts. It’s not about feeling. It’s most of time it help make your body better, like sleeping better, eating better... If you have a stomach ache and you do this part tapping (showing me a tapping point), it’s not so helpful, and you touch another point, another few points so your stomach ache will go.*

Although Aria indicated that the main purpose for applying tapping and acupressure was for physical reasons and not for emotional reasons, she also stated in the same interview that tapping would be helpful for calming people:

Aria: *It’s a good way to help them to calm down and not hurt other people because some students in our class, they get angry because others are kick the ball on their face, the accident... They could do tapping, deep breaths, thinking [to calm them down].*
In the Stage 2 interview, Aria reflected on tapping for herself and her own anger rather than applying her perception of the effects of tapping in other students. In Stage 2 of the project, students were encouraged to use their own words in the setup statements that accompany the tapping action.

Aria: [Tapping’s] not bad because it’s kind of like getting a little bit frustrated by the naughty boys. It can help me to calm down, ’cause they’re just so naughty and they love to tease us. [Tapping] get a little bit calm for my study, read a little bit of book then.

The most words that I’ve used is frustrated…and times at the end I got a little bit sore throat and sore head.

Margaret: Did you say that when you did tapping?

Aria: Yes…not really helpful for the sore throat but it really helps, it helps for the frustrated.

Beyond physical and affective changes, Aria further identified improved concentration when she used tapping for concentration prior to going on stage:

Aria: I give a little bit tap like nearly on the stage—nearly, like they are play and we are underneath waiting. Next is us. I do [tapping] like this (Aria demonstrates the secret tapping on finger points). Yes, it is enough, because in China, I go on the stage many times and that, maybe I got to do the introduction like that. [Tapping] just like kind of moves my concentration like to other things, to tapping—not “how can I do it on the stage?” So it’s kind of help from moving my concentration from the stage to the tapping.
Margaret: *So it helps with your concentration?*

Aria: *Yeah.*

From this account, Aria appears to suggest that distraction—moving my concentration—was the reason that tapping helped her to concentrate before going on stage. Distraction was suggested by other students in this study as the mechanism for tapping effecting change:

Alexis (Class C2, S2): *I’d say occasionally [I felt different with my school work] because [tapping] sort of takes your mind off what happened at recess and lunch, and it sort of puts you more in, you’re in class now, yeah, got to focus more.*

Margaret: *Have you tried to use tapping at all for yourself outside of the class?*

Alexis: *I think I’ve used it once before a running race, and yesterday before I went up and did my speech in front of the Year 4,5,6... I sort of did the secret tapping, but it sort of did take my mind off it for a couple of minutes while I was doing it, yeah.*

Margaret: *Do you think it changed anything? Was it helpful for the running races?*

Alexis: *Well, it sort of like, just distracted me a little bit from the fact that I’m up against these faster people.*

In other EFT research, adult participants have also attributed the benefits of tapping to distraction (Boath et al., 2017). Similarly, in my own clinical practice, adult clients often query the mechanism by which EFT produces results, and many clients ascribe the benefits to distraction. Besides Aria and Alexis, only a few student participants asked me how tapping worked. Students in Years 5 and 6 may not have attained the developmental level for enquiry
or suggestion about explaining the mechanisms of tapping. Mechanisms that underlie EFT have been discussed in Chapter 3 of this thesis.

### 7.1.4 Summary of main theme 1 and sub-themes

*Tapping as a mechanism for change* is evident throughout the three sub-themes, *affective change, cognitive change: confidence and academic focus, and physical change*. After tapping, many students experienced affective, cognitive, or physical changes in their wellbeing states, or a combination of these dimensions. Furthermore, from the student accounts, relationships can be observed between all sub-themes within the main theme *tapping as a mechanism for change*, highlighting the interrelationship between the affective, cognitive, and physical dimensions of individuals that has become the hallmark of holistic health. For example, when change was experienced in one dimension, such as the affective state—feeling calm or less stressed—some students also noticed change in one or more other dimensions, such as their cognitive state, with improved focus or concentration, and their physical state, with feeling less sick in the stomach. The range of experiences of students indicates that tapping produces effects that are multi-dimensional and variable among individuals.

Effects that are multi-dimensional are suggestive of the interplay of interactions that individuals experience, supporting concepts contained in assemblage and non-linear theories that are central to holistic health (Fox, 2011). Rather than defined developmental stages, these theories acknowledge the complex and diverse nature of individuals, and the influence of all the elements of their lives, both conscious and unconscious, that are in a constant state of change. As discussed in Chapter 3 of this thesis, holistic health considers the total makeup of an individual to be relevant, even essential, in health understanding and practices (Gross, 1980). The range of responses reflected by student participants in this study supports the
notion that the overall makeup of individuals may influence the way in which tapping effects change.

7.2 Main Theme 2: Transferability of Skills

The ultimate goal of teaching and learning is the transference of knowledge to other circumstances (National Research Council, 2000). Furthermore, the ability of students to transfer learning is a key indicator of an individual’s confidence and competence in the particular knowledge domain.

Responses from most students in the study indicated they had applied their tapping skills to other contexts, and the two broad contexts, in school, and outside school, are presented as sub-themes of transferability of skills. In addition, a third sub-theme, communicating knowledge, was identified as an important extension of students imparting their knowledge to other people, applying learning beyond their personal use of tapping.

During my mid-stage visits to schools in Stage 1, I showed students how to perform the finger tapping, or secret tapping. I also advised students that tapping could be performed anywhere, and I encouraged them to apply tapping to other contexts. One of the interview questions for students enquired about tapping for themselves outside of the class tapping sessions. Students stated they tapped on their own in various contexts, including in the classroom, in the playground, at home, at sports, and for other performance activities. In most cases, students used the secret tapping method because this method could be performed discreetly. Regardless of the tapping method used, the simplicity of the techniques implied that, in general, students knew how to apply tapping for themselves:
Adele (Class D, S1): *I like that you get to tap some of the points where it doesn’t make you as stressed, and that you know which points it is, so that you can do it other than just at school.*

The reasons that students expressed for tapping outside the class tapping sessions were generally to help them feel calm for performing academic work, or prior to sport or other performance activities. Some students who tapped on their own for a specific purpose noted the relationship between feeling calmer and improved confidence or focus.

### 7.2.1 In school

This sub-theme encompasses the contexts within the school environment that students used tapping on their own, and is discussed in the two categories, within and outside the classroom. In the classroom, aside from the scheduled group tapping sessions, many students reported that they used tapping to help them to focus on school work. As noted in the sub-theme, *cognitive change: confidence and academic focus*, of the dominant theme, Simon stated that he used tapping on his own for inspiration while writing. For most students, tests, school work, and performances were reasons they offered for tapping in the classroom on their own. Teachers also provided accounts of their observations of students tapping on their own at various times in the classroom. On occasions, teachers observed that students were tapping discreetly away from classmates, presumably because they were self-conscious or embarrassed about tapping on their own. The following excerpts from student interviews provide examples of students tapping on their own in the classroom.

For test anxiety:
Alfred (Class C2, S1): *I found it really useful because I had a test one day and I was quite scared I might have got it wrong, and I just started tapping and I wasn’t stressed.*

Millie (Class B2, S1): *I get really hyped up before a test because, I don’t know why, I just do, and then I do some tapping, just those normal ones, and sometimes, like most of the time, I just feel like I’m back to normal.*

Cedric (Class B3, S2): *[I used it for] spelling tests, like tests or something... It’s calmed me down when I do my tests and all that... Because I’m calm, I can get more stuff done.*

For stress related to academic deadlines:

Tina (Class C1, S1): *It’s helped me a lot with my work when I’m stressed out. Like if I’ve got a deadline to meet and I’m not even finished, it just helps me a lot and it calms my stress down... like I can’t do something, and with the tapping, it calms me down and I can go back working and try figure it out.*

Cindy (Class B3, S1): *I sort of felt calmer afterwards—it was like if it was hard work and I started tapping, it calmed me down. I guess I can sort of concentrate more.*

Students also reported observing classmates tapping on their own in class:

Simon (Class B3, S1): *I’ve noticed throughout the class, a lot of people, ever since The Tapping Project started, they start to use tapping when they get frustrated, tired, and for other reasons as well.*
One student, Alex, reported that, when he was assigned to help in a Year 1-2 class, he led the students in tapping:

Alex (Class D, S1):  *...we were playing Simon Says, and I said, “Say and do exactly as I do” ... and I did the entire thing [tapping], and they did it as well, the whole class. Well, they all started to look really tired. ... A few of them said, “Yeah, I’m feeling really tired.” And the teacher then said, “Did that make you feel any calmer?” And they all start screaming, “No!” But ...*

Margaret:  *But it didn’t look like that to you?*

Alex:  *No, it didn’t.*

Students also transferred their skills in tapping to other situations beyond the classroom, reported by both students and teachers. Teacher observations of students tapping in other contexts is presented in the following chapter, “Qualitative Results: What do Teachers Say?” Students reported that games and sports were the most common reasons for tapping in school beyond the class environment. Performance in other activities, such as speech or music, was also noted as reasons for tapping.

For games and sport:

Simon (Class B3, S1):  *[Tapping’s] actually quite calming when you’re really frustrated. When we were playing gang up, and me and Scotty were the last people that hadn’t been tipped, and like it was 10 minutes to the bell and we had to touch the bubblers to win, so we were waiting and I was getting really frustrated, and then we started tapping together and the time went really quickly. It just relaxed me and like kind of made me not think about the possibility that someone could come up behind*
us... Scott started tapping his forehead and... I do this (Simon showed me the secret tapping action), and like we were trying to buy our time till the bell because all these other people like chasing all the other people that were in...

Margaret: So what do you think the tapping did?

Simon: Just relaxed me and like, kind of made me not think about, like, what’s the possibility that someone could come up behind us?

For other performance activities:

Oscar (Class D, S2): It was good to help through nervous times, like on Friday, I did a speaking thing in front of five different schools. I was doing the little secret tapping behind my back.

Margaret: Do you think it helped you?

Oscar: Yeah it did. Well, when I was doing the tapping, it kind of loosened me up a little bit, made me less nervous so I could get up there.

Finn (Class B2, S2): Before a performance, yeah, I did once [do tapping] ... It made me feel more comfortable just sitting up there on the stage.

7.2.2 Outside school

Students offered many examples of tapping outside the school environment, indicating that students recognised a wider application for their tapping skills. Again, teachers reported they heard some of their students say they had used tapping at home, noted in the following chapter of this thesis. The following comments from students suggest tapping was applied outside school and further indicate the range of contexts in which students tapped.
At home:

Finn (Class B2, S2): *I was playing a video game and I got really angry because I lost something important in the game and it was kind of annoying, [and after tapping] I just left the game and went to play another one.*

Adele: (Class D, S2): *[I tapped] when I was at home and I was angry at my sister or at my parents and family. I would go into my room and do some tapping and then I would feel better. It would help me realise that they’re my family and I have to love them, ’cause they’re my family, and that they love me.*

Cindy (Class B3, S2): *When I was at home, like I sometimes feel emotional because my best friend moved, so I get an emotional attack, and [tapping] made me calm.*

Sport and sporting competitions:

Millie (Class B2, S1): *I use [tapping] before my game… I think it does calm me down, ’cause I can go out there and play, but before my games I’m just like* (Millie made a ‘yeek’ noise)—*What do I do? And I think it does work.*

Tina (Class C1, S1): *It’s help me a lot. Recently I had a competition. I was a little nervous so I did the tapping and it made me feel a lot better. It calmed my nerves for the whole comp.*

In addition, Oscar (Class D) used tapping before a music performance and Abby (Class B1, S1) used tapping for dance performance, as noted in the previous theme section.
Although some students tapped on their own beyond the class sessions, other students stated that they did not consider tapping for themselves or, if they did think about this technique, they still did not tap. Annie from Class A stated, in the Stage 1 interview, that she felt confident with tapping and she sometimes led the class sessions; however, she further stated that she did not think about using tapping outside of the class sessions. In contrast, Alison and Julianne from the same class stated they did not feel confident with tapping at the end of Stage 1, and they had not volunteered to lead the class, nor did they tap for themselves outside the class sessions:

Alison (Class A, S1):

Margaret:  Did you use tapping outside of the classroom?
Alison:  No.
Margaret:  Did you ever think about doing that?
Alison:  Yeah.
Margaret:  And what happened?
Alison:  I just didn’t end up doing it.

Julianne (Class A, S1):

Margaret:  Did you do any tapping outside of the classroom?
Julianne:  No.
Margaret:  Did you think about doing it?
Julianne:  Yeah.
Margaret:  And why didn’t you?
Julianne:  I dunno...  I thought it was OK to do because it was like more of something if you’re angry then you’re like, or sad, then you feel a little better afterwards... I was
thinking about it, but then I thought I don’t want to do it because I was like too sad or angry.

Margaret: Do you think you would do any tapping [over the holidays?]

Julianne: No, I don’t think. I’d probably forget about it.

Forgetting is a reason for not tapping found among other study participants (Boath et al., 2013) and also among my clinical clientele. Commonly, even though individuals may have perceived some benefits from tapping, they may still forget to tap. In addition, even if some individuals consider tapping for a particular reason, they still may not follow through with using the tapping techniques. Explanation about individuals’ resistance to tapping is further presented in Chapter 9, “Discussion.”

Students who tapped outside the class tapping sessions were more likely to tell other people about tapping or show them how to tap. Communicating knowledge was therefore chosen as another sub-theme of the second main theme, transferability of skills. This sub-theme involves students extending tapping beyond a personal application to imparting their knowledge and skills to other people.

7.2.3 Communicating knowledge

Communication is influenced by culture and history, and the way in which individuals talk to other people about activities is reflective of their views and perceptions arising from their experiences (Laverty, 2106). In this regard, student perceptions about tapping can be revealed further through their accounts of sharing their knowledge about tapping. Sharing and imparting knowledge to other individuals may also be indicative of competence; however, individuals may also share information from deficit or negative perspectives. The sub-theme, communicating knowledge, encompasses the various ways in which students
imparted their knowledge or skills about tapping to other individuals. Included in the sub-theme are student accounts of engaging in conversations about tapping or teaching tapping to other people.

Many students told other people about tapping. Mostly, these people were family members, whose responses were mixed. Some students who spoke to their family about tapping also taught them how to tap when family members were receptive to hearing more about the technique. In general, the responses students received were positive, and people were pleased the students were learning tapping. Positive responses were not surprising from family members, given that parents or carers had signed consent for their child’s involvement in the project. As a result of students communicating their tapping knowledge with other people, some family members also became interested in trying tapping for themselves:

Tina (Class C1, S1): I told my brother but he’s only tiny, like in Year 4, but he’s 9 years old. I told my brother about it. I think he’s done [tapping] once before a cricket game—I saw him fiddling with his fingers, and then saw him start doing chopping, like the karate chop.

Ann (Class B2, S2): I told my dad. He always gets pains in his back and his legs. So he did that [tapping], and it doesn’t hurt as much he says. [Also] my little brother... He always gets super mad at my sister and he tends to get like, really squeamish during class... He’s only in transition... So yeah, he uses [tapping]. ‘Cause he wasn’t a particular boy that would sit down and concentrate, but now that he’s started using [tapping], the teacher said he’s started, well, focusing more.
Ann reported the benefits that her father and younger brother experienced with tapping. Furthermore, she attributed the change in her brother’s behaviour to tapping—a change the teacher had also reported. According to Ann, her father attributed his physical relief to his use of tapping.

All students interviewed thought that other people should be taught about tapping, particularly other students in the school:

Millie Class (B2, S1): *I think it could be [good to teach others], ’cause I taught my mum and my brother, and it seemed to work for them too. I think it would make a difference [to teach the other classes tapping]. It seems to work for me and these guys, so it must work for them.*

Tina (Class C1, S1): *It would be a good thing [to teach others tapping] because then they can do it if they’re in a competition or they’re doing a game. It can help them calm themselves down before the game and then they’ll play really good. [For students in other classes] it would help them with their work, so if they’re really getting stressed and they can’t cooperate, they can start tapping and they’ll calm down and they’ll start doing the work again.*

**7.2.4 Summary of main theme 2 and sub-themes**

Students were motivated to tap for themselves in a variety of contexts, both in school and outside school. That is, students transferred their tapping skills to other contexts as well as communicated their knowledge of tapping to other people. In addition, all students suggested that other students should learn tapping. Even though students were encouraged by me to try tapping in other contexts, engaging in tapping outside of the regular class
sessions might only occur if students felt confident using the techniques. Some students who stated they did not tap outside of the class tapping sessions also said they did not feel so confident about tapping. Some students may not have tapped for themselves because they did not find tapping beneficial.

7.3 Main Theme 3: Tapping is Not Always Effective

On numerous occasions, students perceived that tapping did not result in positive change. This outcome was not surprising because EFT, like any psychological intervention, is unlikely to benefit every individual on each occasion. As previously noted in the first main theme section, the effects of tapping varied across students. Some students who reported feeling better after tapping on some occasions also reported days when tapping did not work for them, and a few students stated that they felt worse after tapping. This third main theme describes the contexts in which tapping was not effective, and the sub-theme, contradictions, describes the inconsistencies in tapping effects and the apparent contradictions in student reports about the effects of tapping.

Tapping appeared to be less effective for students when they recorded low SUWS, which was indicative of higher levels of stress or unpleasant emotion. Kendrick (Class C2, S1) noted that, if he was already happier, tapping helped him feel “a little more happier and more relaxed.” If he was not feeling good, Kendrick stated that he “probably stayed the same” after tapping. Other students reported similar observations:

Finn (Class B2, S1): [Tapping] helps sometimes and sometimes it does not.... When I get close to zero and I do the tapping, it just doesn’t help... but when I’m up to a five it does help sometimes.
Geraldine (Class C1, S2): *Sometimes it did help, and others, like I was having a really bad day and just wrote down a three and it would just stay that number the whole day.*

Maddie (Class B1, S1): *It’s like that it’s calming and it’s kind of like meditating but sometimes it doesn’t work, ’cause ... I can be sometimes really really angry and it won’t work.*

Cindy, a student in Class B3, identified herself in the first interview as experiencing depression. The year level teachers at the school also confirmed her statement about depression, and they expressed concern about Cindy participating in The Tapping Project. Cindy’s teachers were worried about a negative reaction from tapping, such as reverting to previous suicidal talk or self-harming behaviour. In each of the teacher training sessions for the project, processes were identified for responding to any student who may experience a negative reaction from tapping. As well as established school procedures that were available for any student’s explosive or dangerous behaviour, I provided all project teachers with my contact details for any concerning reaction or behaviour that may arise from tapping.

Cindy was randomly selected for interview, and she participated in interviews at the completion of both stages of the project. Her perceptions about tapping were consistent with other students who stated that tapping was less effective when wellbeing scores were lower:

Cindy (Class B3, S1): *[I felt] worse [after tapping] and sometimes I felt better.*

Margaret: *Can you tell me were there special situations—the times you felt worse? Do you know why that would have been?*
Cindy: Because I have depression. [Tapping] sort of helps at times but when I’m really low, it normally gets really worse ’cause I’m not sort of (indecipherable)… [It was] helpful more times… I sort of felt calmer afterwards… If it was like it was hard work and I started tapping, it calmed me down. I guess I can sort of concentrate more.

Children who feel particularly anxious or upset, or children with an anxiety disorder, may be less inclined or less able to tap effectively, given that high levels of anxiety and distressing emotions have been found to reduce a person’s ability to focus and function (Lukasik, Waris, Soveri, Lehtonen, & Laine, 2019; Mazzone et al., 2007; Stein et al., 2005). Because only three students in the study were identified by their parents with a diagnosis of anxiety, differences cannot be determined in this study between the tapping effects of students with an anxiety diagnosis and students without an anxiety diagnosis. More students among the study’s participants are likely to experience anxiety than the three who were identified, given that students’ anxiety may remain unrecognised and therefore undiagnosed (Esbjorn et al., 2012), and some parents and carers may not have wished to disclose mental health information about their children. Anxiety conditions in children may not be diagnosed if symptoms either do not meet the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria for anxiety disorders, which is limited by the type of anxiety assessed (Grills-Taquechel et al., 2013), or if anxiety is experienced as a comorbid condition, whereby the other presenting conditions overshadow anxiety (Lavigne et al., 2009; Mazzone et al., 2007).

While the current study was not able to determine the efficacy of tapping for diagnosed anxiety conditions in children, other studies have found that EFT is significantly effective in the treatment of anxiety conditions in both adults (Clond, 2016) and youth (Gaesser & Karan, 2017; Sezgin & Özcan 2009).
A few students expressed the view that tapping was weird or may be viewed by other people as weird, which was a reason that some students offered in explaining their reluctance to tap outside the class sessions. Feeling weird may explain the reluctance of some students to tap, and hence the ineffectiveness of the tapping activity:

Alfred (Class C2, S1): *If I did it, people would probably think I’m a little crazy.*

Margaret: *What about secret tapping?*

Alfred: *Ah, I did some of it, normally just before tests and after recess, sometimes by myself. I thought it was a little funny at first but then I started to get into it.*

Alexis (Class C2, S2): *In this school, most of the kids want to be the cool kids, the up-the-top popular kids, and in this class, the people like that didn’t really enjoy [tapping].*

In Stage 2, as a result of the reflective processes following Stage 1, students were permitted to choose the words they used to accompany the tapping protocol. Students were encouraged to use their own words to describe how they felt, such as angry, upset, or sick, and to express the words quietly—loud enough to hear themselves, but not loud enough for other students to hear them. Alexis (Class C2), in Stage 2 interview, suggested that she thought students preferred to use “great, or not great, or their own word” rather than the word “anxious” because she thought “most kids would [not] use that [word].” In accord with Alexis’ opinion, most students stated that Stage 2 was preferable to Stage 1, with the reasons being that they could say their own word, and peers did not know what they were saying:
Ann (Class B2, S2): *[Stage 2] was better 'cause you didn’t feel so embarrassed to say it out aloud.*

Oscar (Class D, S2): *I think doing it by ourselves, separately, was good 'cause we could just do it and then get on with our work instead of having to say, do it in class, we could go, say it in our heads.*

Aria (Class B4, S2): *I think Stage 2 is better because Stage 1 for our class is waa-waa-waa (noisy), our whole class... And now we do it ourselves, because before I’m doing like “not great’, the others are using ‘great-great-great,’ ” then I goes to the wrong one. But this time [Stage 2], no-one is saying, so I can focus on myself a lot... the most words I’ve used is frustrated.*

Teachers also noted some students’ embarrassment to tap, and these statements are presented in the following chapter of this thesis.

At the end of Stage 2, some students described tapping as boring, although this description was rarely used at the end of Stage 1. At the outset of the project, students appeared to embrace tapping, even though this activity was controlled by the parameters of the research. Some teachers also confirmed that the students liked being participants in a research project. Positive comments from students were received during Stage 1 interviews about involvement in the research, and comments in student project books also reflected their appreciation for being involved in the project:

Alfred (Class C2, S1): *Thank you for picking our school to be in the research and I really enjoyed it.*
Elizabeth (Class B3, S1): Tapping has been a great project that we had. Thank you for coming here and teaching tapping to me.

As the project continued throughout Stage 2, however, some students, particularly in Class C1, indicated that tapping, or the project, was boring or annoying:

Cathy (Class C1, S2): It got like, annoying after a long time of doing it... For me, it got a little bit annoying after we kept on doing it and kept on doing it.

Margaret: Was it because you kept on doing it every day or you kept on doing it three times a day?

Cathy: Because we kept on doing it – I think it was both.

Tina (Class C1, S2): It’s really good but it started to get a bit boring at the end... I think it was really boring and I didn’t like it. It didn’t help at all except when I am doing a gymnastics comp. Every day my mood didn’t change.

Millie (Class B2, S2): Well at the start I thought it was really fun and cool, but as I got into it, it got a little bit—like I wasn’t into it as I went through, but it seems to work in some things, when I’m stressed I just calm down and ... well I think it was just getting a bit boring I guess.

Sonya (Class C1, S2): I did not like tapping. It was really boring. It did not help with anything. I still felt the way I did when I put my number down.
Damian (Class C1, S2): *I don’t think it helped. Maybe, just maybe, if we put more pressure points it will work, but it is already kind of boring. Also, when I feel great, I feel not great afterwards because I get bored so it does not help.*

Most comments about boredom were written in the Stage 2 tapping books; however, boredom did not feature strongly in Stage 2 student interviews. Boredom, although not a measure of efficacy, undoubtedly shaped student perceptions about the effectiveness of tapping. Boredom is often associated with dislike for an activity, and most students who wrote comments about boredom with tapping also expressed their dislike for tapping. Cathy, from Class C1, remarked in her Stage 1 interview that “we had lots of things to do and then we had to quickly rush back in and do tapping.” The crowded class schedules may have resulted in students developing a dislike for cramming in the tapping sessions, which may have elicited disengagement and perceptions of boredom. Some students, however, stated they thought tapping consumed too much time because of the number of times they were obliged to tap. For half of the classes in the project, two tapping sequences were arranged for each class session, while the remaining classes were instructed to complete the tapping sequence only once each session. Some students in the two-sequence tapping classes expressed their dislike at having to tap twice, and some students stated their preference for tapping at a particular time of the day, suggesting that other times were less favourable:

Samantha (Class D, S2): *I like [tapping] because it can calm me down after recess and lunch and that, and I don’t like it because we have to do it 3 times a day and most of us aren’t really feeling like doing it.*
7.3.1 Contradictions

The qualitative data showed discrepancies in student responses. Furthermore, the qualitative data and quantitative data together presented inconsistencies and conflicts, which are discussed in Chapter 9, “Discussion.” This sub-theme presents some of the inconsistencies noted in the student qualitative data set.

Some students expressed opposing perceptions about the effectiveness of tapping during the same interview. Similarly, comments by students during interviews were sometimes different to the comments they recorded in their tapping books, or the reflections written at the end of each project stage. For example, Damian’s book comments, presented in the previous section of this chapter, were not consistent with his Stage 2 interview responses, although he still remarked on boredom:

Damian (Class C1, S2): *It got a bit boring but I think it still works, but sometimes when I felt better I got a bit bored and then felt a bit not better. But it still worked at home and stuff, when I felt really anxious.*

Damian’s book comment, presented in the previous section, was tapping “does not help”; however, in his interview, he remarked that tapping helped him at home. Inconsistencies were also apparent in comments expressed by other students:

Samantha (Class D, S2): *I just felt the same... I was piped down from lunch and recess so I could focus more... (Later in the same interview) … It could help for other people, like it might just be me that doesn't change the way I feel after ... Well, it made me feel the same but I was just more piped down (feeling calmer).*
Cathy (Class C1, S1): I don’t know if it really worked with me... I didn’t feel any different ... (Later in the same interview) ... I like that it sometimes works.

Tina (Class C1, S2): It’s really not helping at school but if I do a competition, which I’m doing next weekend, it helps my nerves calm down before them. It’s worked a lot when we did tapping, like ’cause we’d kind of like forgotten through the first week, ’cause we haven’t done it in a while, so when we got back into it we went—after tapping we’d usually do maths or literacy and yeah, it does [help]—I’m getting better grades.

Kendrick (Class C2, S1): [Tapping] didn’t really work sometimes... It changed my number a little bit, sometimes it would have gone down, sometimes it would have gone up, probably more up more often.

The first perception presented by Kendrick about tapping was that this activity did not work; however, he then said in the same interview that his number went up more often than not, indicating that tapping mostly improved his feeling of wellbeing. In his Stage 2 interview, Kendrick suggested that the changes he perceived could be ascribed to the project being “something new”:

Kendrick (Class C2, S2): I don’t really like [tapping] the second time. It’s like I sort of didn’t want to do it any more... It didn’t really change [anything]... The second time, it didn’t really do anything difference. [The first time] it was ’cause it was something new, just like change, and it felt good to do it at first.
Novelty may be a reason that some students embraced the project in Stage 1, and many students expressed that they thought learning tapping would be interesting. As the project continued and became more routine, students may have tired of the scheduled tapping sessions.

7.3.2 Summary of main theme 3 and sub-theme

Tapping was not effective for all students on all occasions, and some students perceived limited or no benefit from tapping on any occasion that they tapped. In addition, contradictions and inconsistencies were noted in some student responses. Tapping appeared to be less effective when students reported a low wellbeing score than when they were feeling less anxious or uncomfortable. Some students became bored with the tapping routines, particularly in Stage 2 of the project although, for most students, Stage 2 was preferred to Stage 1, where students could say their own words quietly with the tapping exercise, which they felt was more private. Some students thought tapping was weird or may be viewed by other people as weird, and these perceptions were expressed as reasons by some students for not tapping outside the class tapping sessions.

7.4 Summary of Chapter

Hearing the perspectives of students was crucial to this study. In this chapter, the student experiences and perspectives about tapping and The Tapping Project have been presented through direct quotations from the students themselves. This chapter has described the processes undertaken to distill themes and sub-themes from the student data set, and the student responses provided in the study have been presented in the chapter within these groupings. The themes and sub-themes derived from the student data set were: tapping as a mechanism for change, with sub-themes affective change, cognitive change: confidence and
academic focus, and physical change; transferability of skills, with contextual sub-themes in school and outside school, and third sub-theme, communicating knowledge; and tapping is not always effective, with sub-theme, contradictions. This chapter has also provided a table that presents an overview of student comments that indicated whether they perceived tapping was helpful or not helpful.
CHAPTER 8

QUALITATIVE RESULTS: WHAT DO TEACHERS SAY?

This chapter further reports the qualitative findings of the study, focusing on teacher responses about The Tapping Project (the project). Aligned with a pragmatic approach, the evaluation of any program for students in schools must include teacher perspectives if the program is to be considered for wider or longer-term implementation in schools. Some programs may be found to be beneficial to students; however, if teachers perceive a program is unfeasible in classrooms, or futile to students, implementation of the program is likely to be resisted. A pragmatic approach is essential in schools, and teachers are central to the management and outcomes of classroom activities. Teacher reflections and feedback were, therefore, considered essential to the evaluation of the project.

As noted in the previous chapter, pseudonyms are used to represent teachers and students, and the letters A, B, C, and D are used to represent each of the schools in the study. Classes are identified by the respective school letter and, in the case of multiple classes per school, a numeral 1, 2, 3, or 4 is ascribed. Stage 1 and Stage 2 are represented by S1 and S2 respectively. The name Margaret, used in interview excerpts, represents me as the researcher. As presented in Chapter 5, Table 5.3, a total of thirteen teachers participated in Stage 1 interviews, and eight teachers participated in Stage 2 interviews.

A thematic analysis was also applied to explore this second part of the qualitative investigation of the study, as outlined in Chapter 5. The teacher data set comprised information gathered from the study’s participating teachers, through the focus group interviews, as well as other school staff members who expressed their observations about students tapping in the schools. These comments were recorded in the researcher’s
observational notes and were incorporated into the relevant themes that were devised through the thematic analysis.

The thematic analysis commenced by thoroughly inspecting the data to identify codes and categories of teacher accounts. Each project stage for each school was analysed separately through a line-by-line examination of transcripts. For Stage 1, nine concepts, or codes, were identified for School A, 32 concepts for School B, 22 concepts for School C, and 27 concepts for School D (Appendix X provides a sample of codes and categories). For Stage 2, 25 concepts were identified for School A, 18 concepts for School B, 27 concepts for School C, and 17 concepts for School D. These concepts, or codes, were assigned code labels that reflected actual words and phrases expressed by teachers.

The next stage of the thematic analysis entailed grouping codes that I considered contained semantically similar concepts, for Stage 1 and Stage 2 respectively, for each school. This process reduced the data into categories applicable to each stage for each school, and I assigned a word or phrase that I considered was representative of each category. Five categories were derived from the Stage 1 data set. The two categories in common for all schools for Stage 1 were tapping is beneficial and problems with managing the tapping sessions. An additional category for Schools A, B, and C was suggestions for improvement. Further to these three categories, extend tapping and opinions about tapping were noted for Schools C and D. From the Stage 2 data set, six categories were derived, which were similar to those categories formulated for Stage 1. Common to all schools were tapping is beneficial and problems with managing tapping sessions. For Schools A, B, and C, suggestions for improvement was another category formulated, and for Schools B, C, and D, the category, Stage 2 was better than Stage 1, was noted. Additional to these categories, extend tapping was created for Schools C and D, and opinions and contradictions was created for Schools B and D. All schools reported no concerns about tapping or the project. This comment was
noted as a general statement and was not allocated to a category. The teacher data set was
further analysed with reference to the research questions, after a review of the interview
transcripts and audio recordings of teacher focus groups and my own notes, to determine the
most appropriate themes.

Three main themes and five sub-themes were identified from the teacher data set. The first main theme that was identified from inspection of the data was tapping as a mechanism for change, with sub-themes, students and teachers. The second main theme identified was transferability of skills, with the two sub-themes, students and teachers. The sub-themes, students and teachers, were chosen to differentiate the teachers’ responses about their own experiences of tapping and their perceived effects of the students tapping. The third main theme identified in the data was tapping is not always effective, with the sub-theme, contradictions. These main themes and sub-themes are discussed in the following sections of this chapter.

8.1 Main Theme 1: Tapping as a Mechanism for Change

This theme reports the perceptions and observations of teachers and other school staff
about the ways in which tapping effected change. As with the analysis of student responses,
all references to change that teachers and other school staff produced were considered
important data, because these comments related directly to the purpose of the study. This
first main theme from the teacher data set describes the range of responses about changes that
teachers attributed to tapping, when performed by both students and themselves. The sub-
themes, students and teachers, reflect teachers’ change perceptions when tapping was
performed by students and themselves respectively. Perceived change is inclusive of
desirable, undesirable, and neutral, or no perceived effects; however, undesirable and no
perceived effects from tapping are discussed more comprehensively in the third main theme,
tapping is not always effective. Of important note is that all teachers reported no negative or harmful effects for either themselves or students as a result of tapping.

Teachers were invited, in interviews, to present their perceptions about the effects of tapping on themselves and on students. However, unsolicited feedback was also presented by other school staff during my school visits. Staff comments and my own observations while present in the schools, wherever relevant, also contributed to the teacher data set from which this first main theme is drawn.

8.1.1 Students

The primary focus of this research was children’s wellbeing, with the purpose of evaluating Emotional Freedom Techniques (EFT), or tapping, to ascertain whether students’ anxiety may be reduced, and their wellbeing improved, when tapping is applied in a class setting. This sub-theme, students, describes the changes that teachers perceived in students as a result of the scheduled tapping sessions in class, and is therefore central to an evaluation of tapping as a possible intervention for schools to adopt to assist student wellbeing.

Teachers’ perceptions about the efficacy of any classroom program are likely to affect the degree of success of the program and the possible ongoing implementation of the program in schools (Anderson et al., 2018; Long, 2003). The way in which teachers have perceived tapping as a useful technique for students is, therefore, an important consideration for this study. This sub-theme describes teacher perceptions about the way in which the scheduled tapping sessions effected change in students within the classroom.

Teachers noted many positive changes in students that they attributed to tapping. In contrast, some teachers noted that a subset of students did not appear to benefit from tapping. All teachers stated they did not perceive any negative reactions from students as a result of tapping. In general, teachers perceived that students embraced tapping from the beginning of
the project, and often students in both stages of the project would remind teachers about tapping sessions, if the teacher had not remembered:

Maria (Class D, S1): I was [thinking]: Oh it’s going to be a drag, they’re not going to want to do it—and they didn’t quite understand. And then after a week, they were like: “Miss, we’ve got to do tapping!”

Sheila: Yeah, they were really eager to do it. They were like, in the morning: “We’ve gotta do tapping before we do anything else.”

Maria: Yeah, they would remind me if I forgot.

Audrey (Class B1, S1): I had two or three that kept reminding me.

Liam (Class A, S1): … There’s a couple of young ladies like Kimmi … [who] would ask: “When are we doing tapping?” Well, they’d be the first person to remind us: “Don’t forget!”

Sheryl (Class C2, S2): They were sort of: “Oh can I do it, can I do it?” So there was that, and they took a bit more ownership in my room because they were reminding me.

Mary (Class B2, S2): My kids said to me, the other thing they didn’t like is that they had to remind me to do tapping. And they did! They reminded me. We had so many interruptions this term … They would always remind me that I HAD to do it.

In Mary’s class, students also initiated the tapping sessions during their teacher’s absence in Stage 1:
Mary (Class B2, S1): *My kids actually really enjoyed it, and there was a time when I was off class for 2 weeks, and the first day they didn’t do it when I was off class. And then Maddie said: “Ho! Somebody has to do it!” So she got up and led ‘em, and for the days that I wasn’t here, they took it in turns for different kids to get up and just lead the sessions themselves, because the relief teacher had no idea what they were doing. So I was really impressed with that.*

All: Yeah.

On hearing that some students reminded teachers about tapping sessions, one teacher in the School B stated that she often forgot about performing the scheduled tapping sessions because her students did not remind her. Other teachers perceived that, if students reminded them to initiate the tapping, they must have gained some benefit from the activity.

All teachers noted that some students in their classes clearly benefitted from tapping. Teachers further noted that tapping may be more effective when applied by individuals rather than groups, and this notion is presented in the later section of this chapter, “Main Theme 3: Tapping is Not Always Effective.” Nevertheless, some teachers perceived their classes were calmer after tapping:

Sheryl (Class C2, S2): *My class has been a lot calmer but I don’t know that it was just they’re maturing as a group and feeling more comfortable as a group. But generally, across the board, they were a lot calmer and there were less outbursts—none of those lunch time dramas.*

Ruth (Class C1): *Yeah, I’d say the same.*

Sheryl: *I don't know if that’s from the tapping!*
Maria (Class D, S2): *I was sceptical at first, but it actually [works]. After recess and lunch, we come in and do silent reading, or read-colour-draw, something to settle them. And then we were coming in doing tapping, and then we started off still doing that. And I found that actually towards the end, we didn’t need to do silent reading or read-colour-draw, because after tapping they were ready to go. ... [tapping] settled them quite nicely.*

In Stage 2, Maria’s class chose to perform tapping independently rather than in unison. Maria found that the tapping exercise was more manageable when performed independently, and she further perceived that tapping was more effective in calming the class when students performed the activity independently:

Maria (Class D, S2): *It was a calming exercise where they would come in, do their tapping, then they’d be quiet because it wouldn’t be a whole class disruption. And then they would get on to their next activity. I think it was a lot more calming this time.*

Margaret: *What differences, if any, did you notice with the behaviour or concentration or focus of the students with Stage 2?*

Maria: *Much more, like they would be calmed instantly and you could tell the kids that had come in and done their tapping because they were settled, whereas the kids that came in and were still stuffing around and chatting and stuff, I’d be like: “Have you done your tapping?” They’d be like: “Oh no,” and then they would do their tapping, and then they would move on with their stuff.*
Teachers noted that some students used different words and phrases to indicate they were feeling calmer, and teachers in all classes highlighted particular students whom they perceived particularly benefitted from tapping:

Henry (Class A, S2): *I noticed a lot of students commented on how it made them feel tired, or it made them feel sleepy or something like that ... I think what they’re trying to say is it actually helps calm them.*

Liam: *Yeah, slow ‘em down.*

Henry: *We had a couple that would wander and do the tapping.*

Liam: *Yeah, yeah, as in moving.*

Henry: *That was interesting.*

Liam: *Yeah, they’d walk around while they were doing it.*

Henry: *A couple of times I’d try and ride them a little bit and say: “Come and sit down,” and then I realised that that was almost like an extra layer of calming themselves, or whatever it was, so they were still doing it. They were still following the steps and saying what they needed to say and so on, but they just walked around and did it.*

Sheryl (Class C2, S1): *[For] Kendrick, that particular child, I think it had a really positive effect on him.*

Tammy: *Absolutely.*

Sheryl: *’Cause he’d come in (Sheryl made a loud noise), and after the tapping, it was sort of redirected I think—that anger—and the same with Matthias. He’d be rolling around, and he loved the tapping—it was his favourite part of the day.*

Margaret: *And did that have an effect on the overall state of the class?*
Sheryl: *I think so, because if their behaviour escalates, obviously it has an effect on everyone else.*

Tammy: *And I could physically see Kendrick’s body language change. When he took that deep breath in at the end and breathed out, you could physically see him settle and relax. He’s the one that really stood out for me too. And I think for him, it’s now about translating that into when he is feeling stressed and anxious in other settings, remembering that this is a strategy that he can use, because he obviously responds really well to it.*

Sheryl: *’Cause his behaviours actually escalated since we stopped doing it regularly.*

Liz (Class B3, S2): *Isaac really got quite a lot out of it even though he wouldn’t document it. Ronny, I think he liked it as well.*

**8.1.1.1 Students with special needs**

Students who were identified with special needs or vulnerable to mental health conditions, were noted by their teachers to benefit from tapping exercises:

Mary (Class B2, S1): *For me it was Sean. Sean kept on saying: “After I do this [tapping], I feel relaxed” … and he is a child that is diagnosed with ADHD, but is on no medication.*

Henry (Class A, S2): *Special needs students seem to get a lot out of the tapping.*

Liam: *Yeah.*

Henry: *And I don’t know whether that was because of the predictability of it or whether it was because it’s a good structured process—it was a strange thing that*
they got used to, and you know, students with special needs respond really well to a familiar, stable environment.

Liam: Yeah, you know the same processes.

Henry: Special needs, as in autism, foetal alcohol syndrome, ADHD, ADD. You’ve got students in here that do have those special needs, quite severe special needs, that do have challenges every day—Jodi, Kimmi—they responded really well [to tapping].

As noted in the previous chapter, Cindy was a student for whom teachers expressed concern about participation in the project because of traits of depression. Cindy’s class teacher, Liz, and the senior teacher, Mary, both described the effect of tapping on Cindy:

Liz (Class B2, S2): I think with Cindy, the way she became more in tune with how she was feeling—the tapping as a calming thing for her didn’t work, but as a holistic thing? I think it did work, because she slowed down and she actually... had to think about how am I feeling? ... Why I might be the way I’m feeling. I think that was a really valuable lesson for her. Whether she tapped or not, that whole self-reflective time of which tapping is a huge part of that. ... And I thought she’d arc up. I’m pleasantly surprised ... ’cause she’s very closed, there’s a wall.

Mary (Class B2): But she’s not as emotional as she was. She’s not threatening to jump out in front of cars any more. I haven’t heard her say that for [a while].

Liz: She’s smiling now.

Mary: Yes, she’s smiling. But I haven’t heard her threaten to hurt herself in some way. I was trying to think back—When was the last time we heard her say something like that?

Liz: I reckon it was before the holidays.
Mary: *She’s smiling. She’s lighter on her feet. She is lighter. She smiles, and she’ll come up and have a little joke with you.*

Liz appeared to attribute Cindy’s changed behaviour more to the reflection part of the program rather than to the tapping itself. However, contrary to Liz’s perception that tapping was not the mechanism for change in Cindy’s emotional state, Cindy stated in her interviews that tapping often helped to improve her emotional state.

Even though most teachers expressed the perception that tapping is an individual technique and not a group technique, some accounts of teachers, a subset of which has been presented in this section, described classes becoming calmer after tapping. Furthermore, the time of day when classes tapped was perceived by teachers to affect the responses of students and the overall settling effect on classes.

### 8.1.1.2 Time of day

With the exception of Class D, the time of day was perceived by teachers to affect the way in which students engaged in tapping, as well as influence student behaviour in general. In Stage 2, the time of day for class tapping was adjusted in some classes, as a result of the action research processes at the end of Stage 1, that involved teachers and myself reflecting on the most appropriate times and tapping styles for the tapping sessions. For some classes, different times of the day for the Stage 2 tapping sessions were decided by teachers. For example, teachers in School C decided that, rather than tapping after recess, students may benefit more if they tapped before recess. The rationale was that problems often unfold in the playground during the recess and lunch breaks. The teachers reasoned that tapping may help to reduce the number of problems in the playground if students felt calmer before they left
the classroom to play. The following conversation by these teachers discuss the effects of tapping at different times of the day:

Sheryl (Class C2, S1): *I think the most productive time I found was straight after recess. It was just the settling of the routine of come in—like already in the morning we have quite a structured routine ... and through their prayers, they often express their anxiousness or their concerns throughout the day, indirectly, of things that are on their mind, but I found [tapping] beneficial after recess when things might have escalated, and they come in and it’s straight into the book out. I think it made a difference to [individual students].*

Ruth (Class C1): *[In] the mornings, there’s not many behaviour issues—it’s normally after recess and lunch when there’s stuff going on out there that we can’t see, or we’re not aware of ... but coming in after recess or lunch, you can see them calming down a bit [after tapping].*

Ruth (Class C1, S2): *Sometimes I would do [tapping] before recess, and then sometimes I would do it after recess, and that had an impact on it as well. Sometimes the kids would come in after recess and they’d be all fired up if something had happened, whereas when they did it before going to recess, they seemed a lot calmer when they came back into the classroom ... It’s [also] a nice way to start the day. So we do community circle or prayer, and then the kids would go off and go and sit down and start their tapping. So it was just this nice flow, it was just all calm and respectful.*
Teachers of School B classes expressed divergent accounts regarding the time of day when tapping was perceived to be more beneficial. Some of the comments expressed were their own observations of student responses to tapping at different times of the day, and some comments were representative of student remarks that teachers heard:

Audrey (School B, S1): Some [students] are saying it gets me going [in the morning]—we’re ready to start working kind of thing, whereas after lunch can be like kind of calming, ’cause they kind of do that, and then they go into silent reading anyway, so they’re not really hyped up after lunch anyway—they’re kind of more tired anyway, so they’re ... kind of thinking about how they’re doing.

Mary (Class B2, S2): [My students said tapping] just seems wrong in the middle session. We don’t need it.

Liz (Class B3): Whereas my kids were less inclined to do it in the afternoon session. The morning was okay, the middle wasn’t too bad, but by the afternoon, they were just, pfft.

Mary: And mine were keen because they were tired, hot, sweaty, and had enough. And they would say: “We need tapping NOW.” So mine wanted to do it in the morning and the afternoon ... I’m recalling some of the mornings THEY reminded me. They said: “We have to do tapping!” And there was one morning where we got into a discussion, and they said: “When we come to school and it’s bla-bla-bla-bla-bla—everything’s happening. When we come in and do tapping, we slow down.” And that’s why they liked doing it in the morning, ’cause they slow down. And I looked at ‘em and thought: “Yeah, you do—you do slow down.” They’re not as noisy in the morning.
The teaching staff of Class A opted to perform tapping sessions only once a day in Stage 2, which was after lunch, noted by the teachers as “usually the hardest part of the day.” Teachers also expressed that they “found it quite difficult to do the tapping at that particular time” in Stage 2; however, they further expressed that the challenge was not in performing the tapping routine, but in motivating the students to complete the project books. Consequently, teaching staff relaxed the book component of the study, and students engaged in the tapping routines more confidently than in Stage 1:

Liam (Class A, S2): *There certainly was less apprehension about the whole process [in Stage 2] ... there was buy-in across the board physically with what was going on—they’d get it done and we’d move through the next part of the afternoon. I looked at a guy like Tom, and those guys who may have, in the first round [Stage 1], try to be disruptive throughout the process, whereas I don’t really remember anyone trying to disrupt the process at all this second time through.*

Henry: *No. We had a couple that would wander and do the tapping.*

Throughout the project, Liam noted that students were correcting other students about the tapping process, and he perceived this behaviour to indicate that they found some value in tapping:

Liam (Class, A, S2): *[Some students were] very quick to pick up if someone at the front—there’d be something like seven of them—and there’d be a voice would quickly call out: “No, you’re doing it out of order,” or something like that. But it ... wasn’t about putting ’em down. It was just—this was the process, ... and I found that, if they’re gonna correct you on how you’re doing it, that for me is an indicator that they
had found a system which was working on some level ... but they wouldn’t pick up if they didn’t think it was important to pick up.

Correcting other students or teachers in the tapping technique was also noted by teachers in other classes and was perceived by teachers to be an indication of students’ interest in the process.

8.1.2 Teachers

The sub-theme, teachers, captures changes that were perceived by teachers, teaching assistants and other school staff as a result of performing tapping during the project’s tapping sessions. Staff expressed a range of responses regarding the effect of tapping on themselves; however, in general, school staff reported they felt calmer and more relaxed after tapping. In Stage 1, teachers led the students with the tapping process, but they did not use the tapping books provided to write their Subjective Units of Wellbeing scores (SUWS) before and after tapping. All teachers involved in the project tapped along with the students during Stage 1; however, some teachers stated that they tapped only sporadically. Some teachers stated that they did not know if tapping helped them because they did not record their scores:

Liz (Class B3, S1): I kept forgetting to score myself. I was so busy thinking about the kids, I didn’t do it half the time.

Henry (Class A, S1): I was probably concentrating on everyone doing it and not focusing on myself. But that’s something I could watch for next time in Stage 2.
In Stage 1, teachers were inexperienced in applying tapping in the class setting. Most teachers had not known about tapping prior to their training sessions with me, and therefore had not developed a high level of confidence in using the techniques before leading the students in tapping sessions. Leading the tapping sessions required teachers to focus on the processes assigned to the project—processes that included students rating their wellbeing levels in their project books. Focusing on the students may therefore have diminished the focus on teachers themselves regarding the effects of tapping. In Stage 2, teachers were more comfortable using the tapping techniques and were more likely to report changes in themselves after tapping. Henry reported, in the Stage 2 interview, that he tapped along with the students, and that he noticed changes in himself after tapping. Liam, the teaching assistant, also indicated, through his affirmation of Henry’s comments, that tapping was beneficial:

Henry (Class A, S2): *I had high levels of anxiety before tapping, so I was sitting down participating ... I think it was good for me—it’s that activity before we get into the work, and you know you’ve got so much on your plate as a teacher, around what you’re gonna do, how you’re gonna differentiate this lesson—is the technology working? or have you? ... So I suppose it just gave me a moment to sort of have a breather, but I find the eating time like that as well.*

Liam (Class A): *Yeah.*

Henry: *I actually like coming in after lunch and eating, having my down time and then getting on with the lesson, rather than come in from lunch and hit the lesson. So you know, for me—yeah, yeah, I suppose [tapping] did help me.*

Liam: *Yeah.*
Henry: Yeah, not so much relaxed—I don’t know how you describe it—just sort of have a moment to get yourself in order and ready to go.

Interestingly, Henry does not relate his change experience of “having a moment to get yourself in order,” or “a moment to sort of have a breather,” to being more relaxed. The concept of relaxation may not be as germane to some teachers while they are still at school and mindful of their ongoing teaching duties for the day. If tapping was applied in a different environment, and away from the proximate demands and pressures of classroom teaching, Henry may have associated a similar “breather” effect with a form of relaxation.

Henry’s description of tapping producing “a breather” effect, and providing “a moment to get yourself in order” presents the notion of slowing down. Slowing down, along with feeling relaxed, was also found to be an effect of tapping for Mary and Maria:

Mary (Class B2, S1): I did [tapping] ... I would feel more relaxed. I could’ve been hurrying to the classroom because something else has gone on, and then this term things have gone on, and once I’ve done [tapping], I went: “Oh, I’ve stopped.”

Maria (Class D, S1): Sometimes if I was just feeling normal, then I wouldn’t notice the difference, but some days I’d be like—if I was really stressed, and I would give [tapping] a go, and it was just that it was an initial relax, but overall probably not, but when I was really anxious or really not feeling that great, I did notice it was quite relaxing for myself.

Maria indicated that she perceived different effects from tapping depending on her emotional state prior to tapping. Even though Maria perceived tapping as relaxing in Stage 1, she did
not continue to use this technique for herself in Stage 2. Maria’s class adapted the tapping sessions to an independent style and, while students were quietly tapping, Maria stated that she used the time to prepare lessons. Sheila, the teaching assistant working with Maria’s class, did not notice any change in herself when she tapped with the students. She also stated that she was not always in the classroom because she shifted amongst classes:

Sheila (Class D, S1): *I was in out [of the classroom], so when I was in, I would do [tapping], but I never noticed a difference in myself.*

Because of the independent style of tapping in this class during Stage 2, Sheila was unlikely to continue to tap during Stage 2, and she was not present at the Stage 2 interview.

Similar to other teachers and staff, slowing down, feeling relaxed, or taking time out, were tapping effects noted by Ruth, who was the only teacher in the study who knew about tapping prior to the commencement of the project. Because of her previous experiences with the techniques, Ruth was enthusiastic about introducing tapping in her class. Ruth stated during the teacher training sessions, and also in the focus group interviews, that she used tapping for herself because she found this technique effective in improving her emotional state:

Ruth (Class C1, S1): *Well see, I love the tapping, so I do it anyway.*

Margaret: *I imagine you continue to do it because you feel it’s beneficial?*

Ruth: *For me it is, yep.*

In contrast to Ruth’s response, Sheryl, the other School C teacher in the project, stated she did not notice any changes in herself after tapping. Sheryl was described by Ruth as being
“super chilled” and “laid back anyway.” Despite Sheryl not perceiving benefits for herself, she remained enthusiastic about the students’ tapping sessions because of the benefits she noticed in the class.

Different to all of the staff responses who felt that tapping on themselves elicited positive change or no change, Audrey reported an uncertain response:

Audrey (School B, S1): I don’t know if I was trying to convince myself that I felt better or if I didn’t. I was just: “Oh yeah, I think maybe I am, or maybe I’m just exactly the same, or maybe I don’t actually know.”

Despite Audrey’s ambivalence about tapping for herself, she regarded tapping as “a very useful tool for the children.” Even with this opinion, Audrey did not continue with class tapping sessions in Stage 2, which is discussed in the later section of this chapter, “Tapping is not always effective.” Audrey’s opinion of tapping being a very useful tool for the children was shared by all teachers in the project. The usefulness, as well as the challenges and contradictions, of students tapping in school, as perceived by teachers and school staff, is presented in the following sections of this chapter, and is further explored in the next chapter, “Discussion.”

8.2 Main Theme 2: Transferability of Skills

The ability to apply a skillset to different contexts is indicative of an individual’s level of competence in using the particular skills, and is further indicative of the value and usefulness of the skillset, as perceived by the individual. Consistent with expectancy theory (Vroom, 1964), individuals are likely to use acquired skills only when they perceive certain outcomes will be achieved. This main theme—transferability of skills—presents statements
and observations of teachers and school staff about the different contexts in which students and staff applied their tapping skills or communicated their knowledge about tapping to other people. The two sub-themes, *students* and *teachers*, have therefore been chosen to present the teacher accounts of both students and teachers, respectively, transferring their tapping skillsets to other contexts, and sharing their knowledge about tapping with other people. As previously noted, the teachers’ data set is also inclusive of other school staff who offered feedback about the project.

### 8.2.1 Students

This first sub-theme provides accounts of teacher observations of students tapping beyond the classroom scheduled tapping sessions, or communicating their knowledge of tapping with other people. A range of contexts is presented in this section, in which students were directly observed by teachers and school staff to use tapping, as well as contexts that teachers noted were reported to them by students about tapping for themselves or sharing their tapping knowledge and skills with other people.

Some teachers noted that particular students benefitted from tapping. On several occasions, teachers observed students tapping in the classroom or elsewhere in the school, outside of the scheduled tapping sessions:

Liam (Class A, S2): *Peter ... would often be the one who would be tapping to himself when he was having some of those moments. And he would also be the first person to say: “Oh, you look like you might need to do some tapping Mr Liam!”—like out in the playground, stuff like that ...*

Henry: *Connor was one of the students that would action [tapping] by himself.*

Liam: *Yeah, he’d be tappin’ away on the mat or away at his desk.*
Mary (Class B, S2): A couple of times I would look up—we’d be doing something—and Carlos’d be—’cause Carlos struggles with anything academic—and he’d sit there and he’d be looking, and the next thing you’d see, he’s tapping, not talking, just tapping. He’d go through the whole routine, and he’d go (Mary did the tapping actions and then took a deep breath for the end of the sequence), and then write. And I said to him: “What are you doing?” And he goes: “Nothing! Why are you looking at me?” He did that quite a few times. So he, on his own, during the day, he’d just break out and just start tapping.

Ruth (Class C1, S2): Some of the kids, I’ve seen them going off and just doing the tapping by themselves when they need it.

Noelene (Class B4, S2): We were writing a review on the school concert, and little Paulo said he was really nervous getting on the stage, so he did some tapping.

Ruth (Class C1, S1): When we had the sports carnival, the Year 6s—it was hilarious—they’re all lining up: “Do the tapping man, it’ll calm you down!” And they were all lined up, [tapping]—I had a laugh. I was like: “See? It does work.”

Sheryl (Class C2, S1): Some do it in church too ... the finger [tapping] ... That’s why I said to use it—when you’re finding it hard to sit still or concentrate. I said: “You’re not allowed to do this one!” (demonstrating the more obvious tapping protocol). But assemblies as well, outside the classroom [students would tap].

The concurrence of sports day and the tapping project is likely to have reminded students to use tapping for their events. A delay period between these activities may have
impeded students from remembering to use tapping, given that forgetting has been expressed by some students in this study, as well as other study participants (Boath et al., 2013), as a reason for not tapping.

The principal of School B reported observing a team member in Tournament of Minds (TOMS)—a problem-solving team-based school competition—tapping before her presentation, “to calm her and regulate her.” The principal further stated that “it obviously worked because they became finalists and got to compete nationally, with the rest of the TOMS teams” (principal, School B). The principal also reported observing her own child tapping at home to relieve frustration. An additional observation of a student tapping in School B was reported by the assistant principal, who stated that, when he was walking by a room arranged for Time Out, he noticed a Year 6 boy tapping. The student, Stewart, had been sent to Time Out for being disruptive in class. When the assistant principal returned to talk to Stewart about his classroom behaviour, the student stated that he was calm again and ready to return to class. The assistant principal was enthusiastic in telling me about Stewart calming himself by tapping, and finished the story by saying: “That’s gold!”

Teachers in various schools noted that they heard students talking about occasions they tapped outside the classroom or told other people about tapping:

Noelene (School B, S1): I definitely heard my kids saying they were doing it at home.
Audrey: So did I.
Noelene: I kind of talked about how it had helped me [to sleep], and so some of them were coming in and saying: “Yeah, I did it last night. It helped me.”
Mary (Class B2): I know that some of mine were speaking to their parents about it, yeah. And they were saying they told their mum, and they’re showing their mum and dad at home what to do.
Noelene: Yeah, actually, I think Logan said that he’d shown his mum and they’d done it together.

Sheryl (Class C2, S1): I had one child that has been trying it on his father. He suggested that his father needs to use it because of his anger management issues.

Beyond the project’s scheduled tapping sessions, students were observed tapping for themselves in the classroom to improve school work or to regulate emotional states. Outside the classroom, students were observed tapping for sporting activities, in church, at assemblies, and in a room arranged for Time Out. Furthermore, teachers noted that students had used tapping for performances and for sleep, and had shown or talked to other people about tapping.

8.2.2 Teachers

This sub-theme presents the responses from teachers and school staff about their use of tapping in other contexts beyond the scheduled class tapping sessions. Even though the study’s focus was the evaluation of tapping for students, I considered that teachers’ regard for tapping was a critical element in the evaluation of tapping in schools. In particular, tapping may be considered a useful intervention for students, more so, if teachers perceive this strategy to be useful for themselves.

Some teachers performed tapping outside the scheduled tapping sessions, in a variety of contexts, and for different reasons. Ruth, at School C, as noted in the previous main theme section, was already familiar with tapping when the project commenced, and she stated that she loves tapping, and regularly uses this technique to alleviate her stress:
Ruth (Class C1, S2): *A couple of times I had a big tap—a couple of times—but see, I’ve already done tapping before, so it’s normal, it’s a good strategy for me to use ... I don’t know whether it’s the tapping or it’s the actual taking time out just to be still and—I suppose when you hear yourself saying it—I’m cranky or tired, then you just own it and you let it go ... and I’m MUCH calmer.*

Sheryl, also from School C, was described by Ruth as “super chilled” and “laid back,” and did not tap for herself beyond the class tapping sessions. Sheryl did, however, initiate additional tapping sessions in her class:

Sheryl (Class C2, S2): *We have, at different times [continued to tap], not routinely. We’ve done it when things have arisen sometimes, or we tried to do it if the day was going to be out of routine.*

Furthermore, at the end of Stage 2, Sheryl initiated a discussion with her class about tapping, which resulted in a decision by the class to continue with tapping beyond the completion of the project.

When Noelene arrived at the first teacher training session, she commented that she was experiencing a headache. After tapping with the group, Noelene stated that her headache had subsided. A second tapping sequence performed in the group training session further reduced Noelene’s headache. During the Stage 2 focus group interview for School B, Liz noted her own experience of headache, with reference to Noelene’s earlier experience:

Liz (Class B3, S2): *The very first day when you were doing the PD [professional development], and I’d already done the PD, I was sort of tuning in and out as I*
needed to. I had a killer headache. And remember the first time we did [tapping PD]?—you (looking towards Noelene) did [tapping] and you had that headache?

Noelene: Mm.

Liz: I thought: “Oo, I’m gonna do tapping ’cause my head’s hurting. It worked for Noelene, and I actually think it made [my headache] better. Like it’s hard when you’re just picking a random score, because you’re sort of doing it, but when you’ve got a purpose for doing it, it’s far more meaningful. And I think that’s why Isaac valued it, ’cause he had a purpose for it. He needed that, and I think with me and my headache, it was the same thing. And I reckon it worked. It didn’t go away but I felt better. Whether I’d just taken the time to—or whether—whatever reason—I do think I felt better.

As well as tapping during the PD session for her headache, Liz also tapped on some occasions when she arrived at school in the mornings:

Liz (Class B3, S2): Sometimes I’d come in first thing in the morning … and I’d sit in this chair … and then I’d do the tapping when I’d remember, and yeah, I did feel better. But whether it was because I’d started concentrating, or the tapping itself, it perked me up a bit sometimes, the first one.

Tapping was also performed by teachers and staff to assist with sleep:

Noelene (Class B, S1): Last night I couldn’t sleep, so I decided to tap, and I sat on the side of my bed and I did some tapping, and then I went to sleep.
Ashley (School A, S1): *I use it all the time and it helps me to sleep.*

Even though others did not report performing tapping for themselves outside class tapping sessions, all teachers noted that tapping was an effective technique to introduce to students, and teachers raised ideas and challenges for incorporating tapping into the pragmatic framework of schools, which is presented in the following sections and in Chapter 9, “Discussion.”

### 8.3 Main Theme 3: Tapping is Not Always Effective

Along with the positive changes that were perceived from tapping, teachers stated that tapping was not always effective—a perception that was also reported by students, noted in the previous chapter. This theme presents teachers’ perceptions of tapping as being ineffective, either for themselves or for students. Although some teachers described particular students and contexts for which they perceived tapping to be ineffective, teachers sometimes offered conflicting accounts about the effects of tapping. These conflicts are described within this third main theme of teacher results, in the sub-theme, *Contradictions.*

Across all schools and classes, in both stages of the project, teachers highlighted the busy schedule of schools. All teachers indicated that heavy demands or the inability to maintain the tapping schedule disrupted the project. The busy school program was also the reason that some teachers perceived tapping was ineffective:

Audrey (Class B1, S1): *It was hard to remember [to do tapping], 'cause there were so many things on after recess and lunch all the time.*

Liz (Class B3): *Yeah, it was really hard once you had that interruption ... I felt very harried, like with the interruptions, like you wouldn’t have your whole class ... For*
the first two or three days, I tried to wait until we had everyone together. Oh my goodness, it was so stressful ... And so in the end, I just cut my losses, and they'd say: “Oh we missed tapping.” “Yeah well, sorry.” ... I think that was more about me ...

It’s [School’s] quite disruptive.

Noelene (Class B4): It’s any wonder we’re all stressed!

Liz: Here we go! Here we go! (said while tapping furiously).


Audrey: It IS rush-rush. Quick, you’ve got to do this, now you’ve got to do this, and you’ve got to do this!

Noelene: Quick! The bell’s going in 5 minutes!

Stage 2 was also noted by teachers to be a disruptive period and, again, the hectic nature of schools was perceived to most likely reduce the effectiveness of tapping:

Noelene (Class B4, S2): I talked about the fact that it would probably make a lot more difference if they did it at home in a focused repetitive way, and that in class, it’s probably not going to be as effective if they’re just racing through it ... It was like [in the] morning: “Oh, okay, yeah, r-r-r, okay! Done! R-r-r-done!” And that’s because schools are such busy, hectic places.

Liz (Class B3): This term’s been a circus, hasn't it? It’s been so-o-o busy.

Margaret: What differences did you notice with behaviour, concentration of the students with Stage 2 as a result of tapping?

Liz: I didn’t, but I don’t know that’s reflective of the tapping so much, as our hectic period of time. It’s just been a circus.
Although these excerpts have been presented from School B, teachers from all classes and schools, in both stages, emphasised the disruptions in schools that impeded the implementation and effectiveness of tapping.

The effectiveness of class tapping was also perceived by Class A staff to be impeded by the number of times students performed the tapping sequence on each occasion. The project design required half the sample—four classes—to perform one tapping routine on each occasion, and the other half to perform two tapping routines. Teachers of Class A, which performed two tapping routines on each occasion, perceived the second routine as superfluous and less likely to sustain student engagement:

Henry (Class A, S1): *It’s just though, if you do [tapping] once, all right: “We’ve done this,” whereas I’d say: “So you’ve done it once now, we’re gonna do it again,” and for those that were going to get something out of it, they got something out of it already during that first one. There weren’t too many [students] that the second wave gave them any benefit to it—they were already to move on—they’d done the tapping ... just the fact that it was a repeated thing that they in their minds, for these young people, they’d go: “Well, we’ve done that today, we’ve done tapping today, and you do the first one, and they go: “Why do we have to do it a second time?”*

Audrey and Noelene—the teachers of the two classes in School B that performed two tapping sequences—noted that students became bored with tapping after a few weeks, and this sentiment was also expressed by other class teachers. Boredom was attributed to the number of times or the length of time that students tapped. Audrey stated that her class did not continue with tapping in Stage 2 because “the children didn’t remind me after recess and lunch ... [and they] were done doing it the second time, which is why I think they chose to
forget to remind me.” The “very busy term [with] so many things on, interruptions, performances etc.” was also noted as a reason for Audrey not engaging in Stage 2 of the project. In contrast, the teacher of Class B4, another class performing two sequences of tapping on each occasion, was diligent in undertaking the tapping sessions, and provided a more structured environment for tapping than in the other classes. Tapping, in this class, was performed more frequently than in other classes, and the teacher ensured that all students performed all of the project processes methodically. This approach also may have contributed to student boredom, and the teacher acknowledged “it was the relentless three times a day that [students] found a bit tiring”:

Noelene (Class B4, S1): *My kids really enjoyed it, but I think towards the end they were getting a little bit tired of it.*

Teachers also attributed student boredom to the book component of the project. With the exception of the Class D teacher, who reported no issues with students completing the project book, other teachers in the study stated that students became bored with the books and with the project requirement of recording their scores before and after tapping, and writing comments or reflections. Teachers suggested that most students did not mind performing the tapping sequence but they did not want to write in the project book:

Liam (Class A, S2): *The [tapping] routine was a positive thing for ’em ... There would still be about six or seven kids wanting to be up the front doing the process, going through, speaking it out, and obviously being quite verbal about the process, but then, getting to write it down ...*
Henry (Class A): *One of our students, in particular, was more than happy to participate in the actual exercise of tapping, but did not want anything to do with recording his numbers, didn’t wish to give any feedback or fill anything in on the sheet. I don’t know whether that’s a worry around writing his feelings, documenting his feelings.*

Liam: *In our wellbeing sessions that we’ve been running this term … the boys … are always more than willing to have a yarn in that space, however, when it comes to the point of writing that down and actually putting it onto paper, the roadblock will occur.*

Sheryl (Class C2, S1): *Some students, I think are tired of it—*I think maybe we did it too often throughout the day … and the process maybe of having to write with some of our reluctant writers. For some of them, it might have been an extra—uh—got to write again. But generally, I think most of them were keen in my room [to tap].*

Ruth (Class C1): *Yeah, same.*

Audrey (Class B1, S1): *Mine didn’t really want to write anything about it. They were happy to do that—da-da-da-da [indicating tapping]—and they had their number and then they were done. They didn’t actually want any reflective writing.*

Liz (Class B3): *Same. I had some who would, and the majority who wouldn’t.*

Liz (Class B3, S2): *… Isaac won’t write—there will be no record for him. He would often take himself away, and I thought he wasn’t doing it, and then yesterday I was watching him. He was doing it. He just wouldn’t (a) acknowledge he was doing it, and (b) record it. Kids would lose their books all the time … but they were the kids*
that I don’t think valued the writing and didn’t want to write … but I think they did value the tapping.

Mary (Class B2): I agree. I think mine did too.

Liz: I think tapping would be far more successful if I wasn’t spending 5 minutes giving out pencils and books.

Mary: I think you’re right. To continue without having to do the books, I think the kids would prefer it too.

All – Liz, Mary, Noelene (Class B4): Yeah.

The book requirement for the project was further found to be an impediment to tapping, particularly for new students in Class A, who were assigned to the class after the project had commenced. Although these new students did not become participants in the project, they still became part of the project’s activities, because the project was conducted across the whole class. The staff noted that students who had missed the project’s introductory lesson, which I delivered, did not clearly understand tapping and the reason for the project book. For these reasons, tapping was perceived to be less effective for these students:

Henry (Class A, S2): Some students I think it’s effective for, other students, not particularly. The new students, I think the concept was lost, and I don’t think it mattered how much, because they hadn’t been there from the start. They hadn’t the background knowledge, they hadn’t the opportunity of learning with the class and having those feelings of awkwardness at the start with learning. They sort of walked into everyone knowing exactly the points and what to do, and they’re sort of looking at us going: “Well what are we doing here?” So I think it was lost on them. … They
still gave it a go ... but was it effective for them? I don’t think so. But for individual students like Carlos? Definitely.

The teaching staff of Class A were the only teachers who raised the challenge faced by new students joining the project activities. School A mostly comprised Indigenous students, and student mobility was high because families often shift between Darwin, Palmerston, and remote communities for various reasons. Student composition in other classes in the study did not change as appreciably, although two new students became project participants in Class B4 in Stage 2. The teacher of this ESL class did not refer to any difference about tapping among these new students and the other students in the class.

Contrary to the many teacher accounts presented in the first main theme of students becoming calmer after tapping, the teacher of the ESL class, in both Stage 1 and Stage 2 interviews, stated that she did not identify any noticeable change in the behaviour of her class after tapping:

Noelene (Class B4, S1): *The kids said it was great but I didn’t notice the silly ones being less silly.*

Noelene (Class B4, S2): *I didn’t notice any difference in their behaviour compared to when we weren’t tapping, and then tapping. Because they all knew about tapping, and then we had that period when we weren’t tapping, and then we started tapping again. I can’t say the behaviour changed from one phase to the next.*

Despite no perceived change in Class B4 student behaviour as a result of tapping, Noelene stated that she observed one of her students tapping prior to a performance and heard students
talk about using tapping themselves; these accounts have been presented in the previous main theme section, “Transferability of Skills.” Furthermore, both students interviewed from Noelene’s class, Aria and Paulo, stated they perceived improvements after tapping, as presented in the previous chapter, “Qualitative results: What do students say?”

Teachers expressed the opinion that tapping is not suitable for everyone, and that the activity was more effective for individuals than groups:

Henry (Class A, S1): [Tapping’s] definitely for individual kids. I can see that it could be useful for small groups or individual kids. It’s certainly good for some kids, and it’s good to have that time for kids to calm down and just take time, but maybe tapping’s not everyone’s thing.

Sheryl (Class C2, S1): It’ll work for some, it might not work for others.

Ruth (Class C1): Yeah, it does [work] for some of mine and it won’t [work] for some of mine.

Noelene (Class B4, S1): So I think at home alone in your bedroom, it’s far more effective.

Audrey (Class B1): I think individually … I think it’s a technique for individuals, but not as a whole class.

Noelene (Class B4): Yeah, I’d agree.

Lizzie (Class B3): And I’d even go as far as to say that some kids actually would really benefit from it, but I don’t know that to do it en masse as a whole cohort … I think there are kids that would get a lot out of it. I think there was probably three or four in my class that were really into it and they really valued what we were doing.
There were three or four who I was ready to tell them I was very annoyed, and then there was the main cohort who were really only doing it because we had to.

All: Yeah.

Liz: But there were a group of kids who were right into it and I think for them it’s very beneficial, and I think some of those ones that were on the cusp—like they were in the main cohort—could’ve gone in that group, but doing it in such a big group, they were quite easily led by the others.

All: Yeah.

Liz: I’m not saying don’t do it with the whole classes, but I think to sustain it for long periods of time for the whole class is not sustainable.

These opinions may also be reflective of the classroom management approaches that were used by some teachers in implementing the project, given that Maria (Class D) noted the calming effect of tapping on the whole class, when the activity was implemented as an independent exercise, as described earlier in this chapter. The previous comments of teachers suggest that engagement in tapping by students can fluctuate, depending on the student and the context. Teachers further suggested that some students were conscious of perceived opinions of their peers, which may have contributed to their resistance to tapping.

8.3.1 Peer influence

According to teachers, a major concern, especially for Year 6, was students may be perceived as uncool while tapping. Teachers in two focus groups expressed that many Year 6 students were “too cool for primary school.” This opinion was the reason offered by one teacher in School B to explain why “Year 5s responded better than Year 6s.” Peer pressure was identified by many teachers as the reason that some students did not engage in tapping:
Liz (Class B3, S2): Isaac really got quite a lot out of it, even though he wouldn’t document it. Ronny, I think he liked it as well—he bagged it, but was doing it when he thought no one was watching. It’s about peer pressure, a lot of it.

Mary (Class B2): This week and last week, I think it was: “Oh, do we have to do it?” a couple of ’em would say—my Jim, and as soon as Jim says it, the whole class copies.

Liz (Class B3): I heard my kids say: “Do we have to do it?” But then at other times, I would notice them tapping.

In Class A, Jack was identified by his teachers as being a peer group leader. Jack had told me during the Stage 1 interview, that he was opting out of the project. When Jack announced, at the commencement of Stage 2, that he was no longer engaging in the project, his teacher recognised the likely effect of his choice on the rest of the class:

Henry (Class A, S2): I pulled him aside and said: “Jack, if you opt out mate, I’m gonna have 26-27 other kids opt out.” Because it’s that sheep mentality—monkey see, monkey do. “They will pull out because you pulled out. So hang in there.” And one day he said to me: “I’m happy to do the tapping. I just don’t want to do the writing.”

Both Henry, the class teacher, and Liam, the teaching assistant in Class A, confirmed that Jack’s reason for wanting to disengage in the project—dislike for writing and the project book—was characteristic of him. Despite Jack’s refusal to use the book, he was noted to be “still very passionate about [tapping],” and continued tapping enthusiastically. Most students
in Jack’s class also did not use books in Stage 2, which may reflect peer influence. Henry and Liam both reflected on the impact of peer influence in general for Year 5 and 6 students:

Henry (Class A, S2): *11 and 12 year olds are like sheep. They follow each other ...*  
*So when you’re sitting in a group, and one person says: “Tapping doesn’t work for me,” you’re not going to write: “This is really helping me; it’s relieving my anxiety; I’m feeling calm; I want to action this as much as possible throughout the day.”*  
*You’re going to [say]: “Oh yeah—No, this doesn’t work for me either.” And I wonder how much of that happened in here?*

Liam (Class A): *And the other way as well? I think that’s why we ended up with so many who were wanting to be at the front—a part of the process—who, were like every day ... being competitive about who would be leading by example, by doing it, which took me by surprise.*

Liam suggested that the influence of peer pressure may have been both positive and negative regarding student engagement in tapping. Students may have accepted or rejected tapping according to the reactions of peers who were perceived by the other students to be popular or, as expressed by Alexis, and noted in the previous chapter, “the cool kids, the up the top popular kids.” Fear of being ridiculed is a key factor associated with peer pressure (Lashbrook, 2000), and this fear was identified as a significant consideration for students in Class A:

Henry (Class A, S1): *Some of the boys, especially, might not write they’re a three [SUWS] because of what others might say.*

Lily (Class A): *Why? What’s going on?* (spoken in a manner that students may ask)
Henry: *Exactly.*

Teachers noted that Stage 2 was better for students because they did not say the word that expressed their feeling out loud, as was the process in Stage 1. As a result of the reflective process in Stage 1, the tapping protocol for Stage 2 was modified to students talking softly, to themselves, while they were tapping. The quieter version of the tapping process was perceived by all staff to be an improvement on the more vocal and audible process that was implemented in Stage 1. Mostly, the reason the quieter tapping version was perceived by teachers to be more effective was that the process became more private for students, which was perceived to be more appropriate for self-expression. Students speaking quietly meant that other students would not hear them, which reduced the risk of students feeling self-conscious or embarrassed:

Maria (Class D, S2): *[The students] much preferred being independent. And they’re not having to share or be embarrassed about how they’re feeling, which I think they liked.*

Mary (Class B2, S2): *My kids said: “Tell Margaret we like it that we didn’t have to say it out loud. We could just say our own thing very quietly.”*

Sheryl (Class C2, S2): *And being able to do it on your own, like that silent thing. Some of them would come in 10 minutes late, and then they would say: “Oh, can I do my tapping on my own?” So they’d then go through the process just quietly on their own at their table, which was good.*
Feeling weird or embarrassed may have affected the circumstances in which students would tap. For example, when Mary, the teacher of Class B2, noticed one of her students, Charlie, tapping on his own in the classroom, she asked him what he was doing. Charlie immediately stopped tapping and responded: “Nothing, why are you looking at me?” After that episode, the teacher reported that, whenever she saw students tapping on their own, she would ignore them.

As noted by teachers, students tapping independently and quietly was perceived to be a significant improvement in Stage 2 of the project, increasing the effectiveness of tapping, because students could perform tapping with less concern about peer or teacher opinions. In addition, most teachers stated that students in Stage 2 were familiar with the tapping protocol, which facilitated the process of performing tapping in class. A difference of opinion regarding Stage 2 being the preferred style for tapping in class was presented by the teacher of Class B4, and this difference is presented in the following section, “Contradictions.”

### 8.3.2 Contradictions

Teacher responses presented some conflicts about the effectiveness of tapping for students. This sub-theme presents the contradictions and discrepancies that teachers reported regarding their observations of student engagement in tapping sessions and the perceived outcomes.

Conflicting messages about the effectiveness of tapping for the students were reported by Maria, the teacher of Class D. In the final interview, Maria stated that tapping was not hugely effective, yet she also stated often, during the same interview, that tapping calmed all of the students, and she could tell when some students had not completed their tapping routine because of their unsettled behaviour. The discrepancy was particularly noted in a
sentence where Maria described tapping as “definitely a good calming activity” followed by the diminishment of its effects:

Maria (Class D, S2): *It’s definitely a good calming activity—whether it has a huge effect, I don’t think so, but it’s still a quick little thing that gets them to focus and realise that you’ve now come in from outside, you’re in the classroom, it’s time to relax. … They would be calmed instantly, and you could tell the kids that had come in and done their tapping because they were settled, whereas the kids that came in and were still stuffing around and chatting and stuff, it’d be like: “Have you done your tapping?” They’d be like: “Oh, no,” and then they would do their tapping … and then they would move on with their stuff.*

Many examples were presented by teachers of discrepancies noted between students’ comments and their actions. Teachers reported that some students expressed resistance to engaging in the tapping sessions, yet were later observed tapping:

Mary (Class B2, S2): * … this week and last week, I think it was: “Oh do we have to do it?” A couple of ’em would say …* 

Liz (Class B3): *I had kids verbalising: “Do we have to do it?” But then at other times, I would notice them tapping. I think it was the whole making a big deal of everyone doing it together and recording it in the book that they didn’t like, not the tapping. 

Mary: *They would always remind me that I HAD to do [tapping]. So there’s two different messages coming.* 

Liz: *Contradictory messages.*
Henry (Class A, S1): [Alison would say] “I’m not doing tapping. This doesn’t work.” And then the next day she’d be right into it.

Liam (Class A): And the other one who, even though would say: “I’m not doing this, this doesn’t work for me,” was Daisy—yet as soon as everyone got started, [she] was smashing it. ’Cause Daisy was someone that said: “I’m never going to do this,” yet she was at the back and tried not to make eye contact while she was doing it secretly to herself. … There are those that always have too much pride to say that something works for them.

Nearly all teachers perceived that the quieter Stage 2 style of the tapping process was more effective than the louder Stage 1 version. The exception to this pattern was the teacher of Class B4, who perceived that students did not engage properly in the process when the procedure was less structured:

Noelene (Class B4, S2): I think doing it on their own meant it kind of opened it up to them just not taking it very seriously, to be honest. I think some of them were just going through the motions, going (Noelene made rushing actions). “Yer – yer – Done!” And they weren’t taking it seriously, whilst if someone’s guiding, they’re kind of forced to follow it properly ... But then on the other hand, I think some of them are really thinking about it, so it depends on the personality really.

Noelene identified the contradiction of her perceptions of students “not taking [tapping] seriously” and then “really thinking about it.” Consistent with other teachers’ perceptions, Noelene concluded that tapping’s effectiveness varied across individuals. As noted earlier, Noelene’s class, being a dedicated ESL class, was smaller than all other classes in the study,
and lessons appeared to be conducted in a more structured manner. Noelene noted that tapping is not always effective, and she suggested that the reason for some positive responses from students was not because students felt better after tapping, but because students like to please:

Noelene (Class B4, S2): *It doesn’t always work. But they wanted it to work. So I think there may be a bit of a skew there because kids want to please. So I think that could be [seen] especially in the comments. But I think they got more and more honest, looking at them* (Noelene was looking through the student project books while making her comments).

Mary (Class B2): *I think the first go (Stage 1), yes, they wanted to please. And the second go, they went: “Ah, this is what we do.” There was a different attitude: “Oh, we do this.”*

Noelene was drawing attention to a discrepancy that she perceived between the real effects of tapping among students and the effects that students expressed to me. Noelene assumed that students may have written in their books only positive comments about tapping because they wanted to please me, with the assumption that I was seeking only positive outcomes. However, as Noelene was observing students’ comments while talking in the focus group, she believed that the comments she was reading were increasingly honest, throughout the progression of the project. Agreeing with Noelene’s comment of students wishing to please, Mary suggested that, in Stage 2, students became more confident and were less inhibited by the desire to please. Greater honesty among students in Stage 2 was also raised in the School C focus group interview:
Sheryl (Class C2, S2): *Just from observations, I think they were just more honest with themselves in Stage 2. They’d gotten the process down pat—they were better than me ... [they were] a bit more comfortable that actually no-one’s gonna look in your book and no-one’s gonna really listen to what you are saying too much.*

Sheryl’s comments further suggest that students, in Stage 2, were less inhibited in their responses by the desire to please and the opinions of other people. The notion of students wanting to please was also raised in the Class A interview:

Liam (Class A, S1): *Some kids want to try and please either their friends or the other people in front of them ’cause they think that’s the right answer. ... I wonder how much of an impact that may have had on some of those comments as well—whether it was: “I’m just putting I feel tired” because this person’s put that.*

Liam’s comment in relation to students wanting to please, rather than providing accurate responses about the true tapping effects, was followed by confirmation by both Liam and Henry about the accuracy of comments that I reported by one of the students:

Margaret (S1): *[Alison] didn’t grab the mornings at all. She said recess and lunch were much better for her.*

Henry (Class A): *And I believe that.*

Liam (Class A): *I would too.*

Henry: *She definitely warms up to the day.*
Students wanting to please myself, teachers, or peers may have influenced their responses to tapping, resulting in conflicting results and possible inconsistencies in tapping outcomes, and these conflicts and inconsistencies are further discussed in the following chapter, “Discussion.”

8.4 Summary of Chapter

This chapter has presented the qualitative findings of the study from the teacher data set. The processes undertaken in the thematic analysis have been described, and the main themes and sub-themes derived through the analyses are presented. The three themes and subordinate themes for the teacher data set are: tapping as a mechanism for change, with sub-themes, students and teachers; transferability of skills, with sub-themes, students and teachers; and tapping is not always effective, with the sub-theme, contradictions. The chapter has included direct quotations from teachers in support of the themes and sub-themes derived.
CHAPTER 9
DISCUSSION

This research focused on the evaluation of Emotional Freedom Techniques (EFT), also known as tapping, for reducing anxiety and improving wellbeing in primary school students. Specifically, the study focused on evaluating tapping as an intervention for Year 5 and Year 6 students in classrooms. Following an extensive search of the research literature, this study appears to be the first investigation of the effects of tapping, when used as a class technique in primary schools. Other recent research has investigated the use of EFT as a group technique in secondary schools for students aged 13 to 16 years, and found that after 5-weekly sessions, students experienced a significant reduction in fear of failure from the pre-intervention period to a follow-up period of 12 months (Stapleton et al., 2017).

The results that have arisen from the current research are consistent with findings of other studies that have evaluated EFT for individuals of similar age and individuals in educational contexts, which have found that EFT assists students in feeling less anxious (Gaesser & Karan, 2017; Sezgin & Özcan 2009). To guide the current study, the following research questions were posed:

1. What are the perceptions of Year 6 students related to using EFT?
2. Is EFT an effective modality for reducing anxiety and distressing symptoms and improving wellbeing in Year 6 students?
3. What are the perceptions of teachers related to using EFT?
   (a) How difficult is EFT to learn and administer?
   (b) What have been the effects of using EFT with classes? Have there been any changes in students in the areas of behaviour, performance, and concentration?
(c) Do teachers feel any difference in their own emotional, cognitive, and motivational states after using EFT?

4. Is EFT an effective modality when administered as a class activity?

5. Does EFT support the social and emotional learning curriculum?

6. Are the skills learnt in EFT applied by students or teachers outside the classroom setting?

This chapter provides responses to the research questions, drawing on both the quantitative and qualitative information gathered from students and teachers, as well as information gathered from other school staff, and my own observations over the course of the research. Integral to the discussion that arises from the qualitative elements, in particular, of this study, is the researcher’s background and position (Hennink et al., 2011). As a practising psychologist, I have observed numerous positive responses in both children and adults when EFT has been used in clinical settings. Furthermore, on a regular basis, I have observed positive responses in adults using EFT in workshop settings. These observations have been motivating factors for this study and, together with my former experiences as a primary school teacher, have influenced, to some degree, the interpretation and discussion of the results of this research.

The study was undertaken within a pragmatic paradigm that allowed for the flexibility required for conducting research within a school environment, combining both quantitative and qualitative methods. The pragmatic paradigm also provided latitude to inspect the findings with reference to appropriate theories and models most applicable to schools. From examination of the data, the overarching theory I have chosen as a lens for discussing the study’s results is cognitive evaluation theory (CET) within the predominant framework of self-determination theory (SDT). The following section provides a description of these
theories with relevance to wellbeing and education, which provides the rationale for the theoretical lens through which I have chosen to discuss the study’s results.

9.1 Self-Determination Theory and Cognitive Evaluation Theory

Self-determination theory focuses on the conditions of social context that foster wellbeing and self-motivation (Ryan & Deci, 2000a). According to this theory, self-determination is the degree to which individuals feel they are granted autonomy or choice in their behaviour, as opposed to feeling pressured or controlled by external forces (Grolnick, Gurland, Jacob, & Decourcey, 2002). SDT is the overarching framework for other theories that explain specific elements of human motivation and behaviour (Roberts, 2018), one of which is cognitive evaluation theory, which addresses factors that support or hinder the development of intrinsic motivation in individuals. Intrinsic motivation refers to an individual’s engagement in an activity, based on the inherent gain and satisfaction derived from the activity itself (Ryan & Deci, 2000b). An intrinsically motivated person engages in a particular activity with energy and vitality, and feels a sense of satisfaction while completing the task (Riley, 2016). In contrast, extrinsic motivation relates to engagement in an activity for external rewards or forces, such as control or pressure from other people (Ryan & Deci, 2000b).

Individuals can be motivated both extrinsically and intrinsically; however, studies have found that individuals who are motivated intrinsically experience enhanced general wellbeing (Ryan, Deci, & Grolnick, 1995), as well as improved confidence, that leads to improved performance on a range of tasks (Ahmed & Jamshaid, 2014; Deci & Ryan, 1990). Three psychological needs—competence, autonomy, and relatedness—have been identified in CET as fundamental to personal growth and wellbeing. These needs are believed to be important in the development of intrinsic motivation (Grolnick et al., 2002), and therefore are
key elements in children’s education (Niemiec & Ryan, 2009). CET and the broader SDT can offer explanations on how students engage in activities, both in and outside the classroom. The continuing discussion addresses the study’s quantitative and qualitative findings, with reference to the psychological needs of competence, autonomy, and relatedness that are fundamental to students’ wellbeing and growth.

The contexts for the current study were Year 6 and composite Year 5-6 classes in the Darwin, Palmerston, and rural areas of the Northern Territory (NT). Two Northern Territory Department of Education (NTDoE) schools and two Catholic Education (CE) schools participated in the study. Central to this context are the people in the classes, that is, the teachers and students. Some key factors that influence the class context are the school’s geographic location, the socio-economic and cultural backgrounds of the students, and teacher qualities and capabilities.

Despite participants in the study being in the upper primary school cohort, a wide range of developmental stages were represented in all classes, with individual differences noted by teachers across all classes and school activities. Similarly, The Tapping Project (the project) produced a range of responses among students. The following discussion of each of the research questions considers not only the quantitative and qualitative analyses of the study, but also highlights the need for accommodating differences among students and classes when implementing tapping in schools, and the importance of incorporating the psychological needs of autonomy, competence, and relatedness.

9.2 **What are the Perceptions of Year 6 Students Related to Using EFT?**

Chapter 6, “Quantitative Results” and Chapter 7, “Qualitative Results: What do students say?” present a comprehensive description of student responses, including their perceptions, about using tapping. In answering this first research question, I will briefly
summarise the student perceptions that have been documented in full, earlier in this thesis, and I will provide further discussion and explanation of some of the student responses. In addition, my discussion integrates, where applicable, the psychological needs relevant to the development of intrinsic motivation that may have affected student responses, and further explores the nature of perception within the context of the pragmatic paradigm.

In summary, the majority of students perceived tapping to be helpful, although individual differences were also noted among students. Seventy-two percent of student feedback derived through interviews, comments written in student project books, and my general conversations with students, was favourable regarding the experiences with tapping. In addition, quantitative results showed that students, who specified they were anxious while performing the tapping protocol, were likely to feel better after tapping. In general, students perceived tapping was helpful for affective, cognitive, and physical states. Specifically, some of the effects that students perceived from tapping included reduced stress and anxiety, resulting in an increased sense of calm and relaxation; increased levels of happiness and confidence levels; improved focus and concentration in academic, sporting, and performance activities; and a reduction in physical discomfort. Students also tapped in other contexts, both in school and outside school, which is consistent with the study by Benor et al. (2009) in which Canadian university students reported willingness to use EFT for stress reduction in various contexts in their lives, beyond the parameters of the study.

Despite most students deriving benefits from tapping, positive outcomes were not experienced on every occasion that students tapped. In addition, some students perceived tapping produced no difference on any occasion that they tapped. Regardless of the range of perceptions, students unanimously thought that tapping should be taught to all students in schools. In this respect, students who perceived tapping was not effective for themselves acknowledged the benefits of tapping for other students. All students, therefore, perceived
some positive effects may be gained from tapping. Possibly, during the project, some students perceived their peers to display improvements from tapping. Possibly also, some students may have been reluctant to admit that tapping produced positive effects in themselves, and instead, projected the perception of disinterest and boredom.

Boredom was a reason that some students became disinterested in the class tapping sessions. Feeling bored is also likely to have affected students’ perceptions about the efficacy of tapping. Even though boredom may appear to reflect diminished efficacy, an individual’s reduced interest in any activity may be explained by multiple reasons, rather than be representative of the activity’s efficacy and overall effect. Some of these reasons are explored in the five explanations offered in following paragraphs.

Confidence and Competence

First, some students who stated they were not confident to tap outside the scheduled tapping sessions, may also have lacked confidence in performing tapping during class sessions. Students often mirror the teacher and other students when engaging in class activities, but may not feel confident or competent in performing an activity on their own. In CET, the psychological need for competence refers to the effective enactment of behaviour (Niemiec & Ryan, 2009), and is attained from feelings of success in performing an activity and experiencing positive regard for the activity (Riley, 2016). When individuals feel they are competent to perform a particular activity, they are more intrinsically motivated and less anxious about engaging in the activity (Roberts, 2018; Ryan & Deci, 2000a). Conversely, individuals who do not feel competent in a particular activity are unlikely to engage in the activity independently and, in a class setting, are likely to engage with negligible enthusiasm or with boredom.
Central to developing competence is positive feedback, which can be received through engagement in the activity itself or from an external source, such as another person. For example, if a child plays notes in a particular order on a musical instrument, positive feedback can be received when the tune produced is recognised by the child—that is, the feedback is inherent in the task itself. Alternatively, a person may praise the child for the musical creation, offering an external source of positive feedback to the child. Because tapping was undertaken as a class exercise, with all students performing tapping at the same time, limited attention was devoted to any particular student about the technique being applied. In my introductory lesson with students, I focused on imparting the instructions for tapping to the whole class, and opportunities to engage with individual students on their levels of competence in using the techniques were limited. Student competence levels were also not assessed by teachers in ongoing tapping sessions. Not feeling competent with the tapping techniques may have diminished motivation and enthusiasm, which may have led some students to perceive tapping as boring and ineffective.

**Understanding**

Second, some individuals may not have understood the purpose of tapping, diminishing their involvement in the activity. Understanding the reason for tapping appeared to be important for students to engage enthusiastically in the project. In some classes, some students were absent during the project’s introductory lesson—a lesson that included a description of tapping, reasons for tapping, learning the tapping technique, and suggestion of possible outcomes from performing tapping. Teachers noted that students who were absent from the introductory lesson did not understand the reasons for the tapping activity. Hence, they were less interested in engaging in tapping, and possibly did not perform the tapping protocol appropriately. These students are unlikely to have felt confident with their levels of
competence with tapping, which in turn, likely affected their development of intrinsic motivation for the activity. Disengaged students were more likely to feel bored with tapping, and less likely to perceive positive outcomes from the tapping exercise, than students who understood the reasons for tapping and the project.

**Manner of delivery and autonomy support**

Third, the manner of delivery of the tapping activity may have become monotonous for some individuals. Even though most students perceived that tapping was “good” or “effective” at the commencement of the project, some students grew tired of the routine of 3 times a day over 4 weeks. The novelty of tapping may have contributed to student interest in Stage 1; however, the ongoing requirement, with limited autonomy surrounding the project may have contributed to loss of interest for some students as the project progressed.

Autonomy, as a psychological need within cognitive evaluation theory, refers to volitional behaviour of an individual— that is, the need for individuals to experience their behaviour as self-endorsed (Niemiec & Ryan, 2009). Individuals who experience autonomy believe their actions emanate from themselves, a notion known as perceived internal locus of causality related to their actions (Ryan, 1991). Studies have found that autonomy support, as opposed to controlling environments, is associated with children’s wellbeing (Roth, 2008), enhanced performance (Núñez & León, 2015), and persistence (Pelletier, Fortier, Vallerand, & Briere, 2001), as well as contributes to the development of intrinsic motivation.

In the context of schools, autonomy support involves teachers engaging in behaviours that enable students to reach choices and think independently (Roth, 2008). Studies have shown that autonomy supportive teachers facilitate higher levels of intrinsic motivation in students, as well as curiosity and a desire for challenge (Deci, Nezlek, & Sheinman, 1981; Ryan & Grolnick, 1986). Conversely, a study by Ryan (1982) found that students were less
intrinsically motivated for task engagement when they perceived their teachers’ feedback as more controlling. Mostly, students perform tasks more enthusiastically when they experience a higher level of autonomy, as opposed to situations in which they feel control or pressure (Niemiec & Ryan, 2009).

For some students in the study, the limited autonomy of the tapping sessions in Stage 1 may have evoked some resistance to tapping. At the end of Stage 2, some students described tapping as boring, although this description was rarely used at the end of Stage 1. At the outset of the project, students appeared to embrace tapping, even though this activity was controlled by the parameters of the research. Statements of boredom were less common in classes that progressed to more independent styles of the tapping activity, whereby greater student autonomy was supported.

The instruction to complete the book entries in the project imposed a further level of control on students. In Stage 2, most students did not like using the books, and teachers confirmed greater resistance of students using the books as the project unfolded. Consequently, there was less recorded book data from students in Stage 2 than in Stage 1. Nonetheless, most students were still happy to engage in tapping for the duration of the project. In contrast, some students liked the opportunity to reflect and write, and conceptualized the book as a personal journal. The student books served the purpose of record collection for the research. They were designed to provide a visual record for student assessments of their Subjective Units of Wellbeing scores (SUWS), as well as a means for students to record their reflections about tapping. For some students, however, numeric and word notations in their project books illuminated that the book work was difficult or boring, and contradicted their interview comments about the tapping exercise. During the interviews, most students spoke about the ways in which tapping helped them, even though they may have expressed the tapping schedule or writing in the book was tedious.
For this project, student responses were typical of the range of responses that may be expressed about any class program. For some individuals, results showed a disparity between spoken and written expression. Face-to-face conversations and interviews may possibly elicit responses that are biased towards the interviewer, given the power imbalance between children and adults, and children being accustomed to having to please adults (Punch, 2002). Students, therefore, may offer comments they believe are favourable for the interviewer. Nevertheless, many primary school students dislike numeric or written expression and, in control situations, they may offer simple and abrupt answers to fill in the allotted spaces, rather than provide more reflective and descriptive responses. The interviews, I considered, provided an extension for students to express themselves beyond the minimal book notations, and interviewees were provided with opportunity and questioning styles to share honest responses.

Disparity in student responses is explained within a pragmatic construction, which embraces individual change elements as characteristic of all individuals. Perceptions on wellbeing states, in particular, are constantly changing, and students may offer different responses at varying points in time. This disparity is well illustrated by Tina, noted in Chapter 7, “Qualitative Results: What do students say?” On one occasion, Tina wrote in her book that tapping improved her academic grades and her focus in gymnastics and yet, on another occasion, she noted that tapping was boring and did not help her. Similarly, this apparent contradiction was replicated in Tina’s interview.

The book requirement for the project, in addition to the set tapping schedule, may have portrayed high levels of control for some students, diminishing their need or preference for autonomy, and thus impairing the development of intrinsic motivation for tapping. The perceived control elements may have given rise to some negative perceptions about tapping. In addition, some students may dislike written work, and activities that are associated with
active literacy engagement, such as writing in the project books, may have negatively influenced students’ perceptions about the exercise of tapping.

During my mid-stage visits to classes, I taught students the secret tapping technique, and I encouraged them to tap for themselves whenever they wished. I also presented some examples of contexts in which they might tap, along with some possible outcomes. Students were unlikely to be reminded further by their teachers about tapping for themselves, given the teachers’ busy schedules, which often resulted in skipping the scheduled tapping sessions. Beyond the scheduled sessions, limited attention was devoted to student tapping by teachers. Minimal autonomy support, therefore, was offered to students for tapping independently. In addition, students’ desire to tap inside the classroom, aside from the scheduled tapping sessions, may have been further impaired by concerns about the teacher or other students observing them. In other words, students’ perceptions of limited autonomy support for tapping independently may have reduced their willingness to tap, as exemplified by the defensive response of Charlie in Class B1: “why are you looking at me?” to his teacher’s enquiry about him tapping on his own in the classroom.

The project, although commencing with a strong element of direction in Stage 1, progressed to the provision of greater autonomy support in Stage 2. This shift was a result of the action research method employed at the end of Stage 1. Reflection by all parties—students, teachers, and myself—prompted changes in the implementation of tapping in classes during Stage 2. The changes would provide greater autonomy for students in the choice of words they could use when tapping, and would also offer greater privacy for students, due to the quieter manner in which students would articulate their own words. The shift to the provision of greater autonomy for students in the way they performed the tapping protocol would allow students to assign personal relevance to the intervention. Fostering relevance, along with suppressing criticism, have been found to be two teacher behaviours
that influence students’ feelings towards, and engagement in, learning (Assor, Kaplan, & Roth, 2002). According to Assor, Kaplan and Roth (2002), relevance, or actions that align with personal goals, are thought to be more important for individuals than the provision of autonomy-support alone.

In Stage 1 of the project, the script that accompanied the tapping sequence provided only three emotional states—anxious, not great, and great—from which students could choose. During the tapping sessions, all students spoke in unison, and used their chosen word at the appropriate time during the script. In Stage 2, however, students were able to speak quietly to themselves, and could choose any word that matched how they were feeling at the time of tapping. Collectively, many words were used by students in Stage 2 (Appendix Y), which covered a broad range of affective states, such as angry, upset, happy, and sad; cognitive states, such as concentrate, confidence, and focus; and physical states, such as sick, hungry, and sore. Although students were free to choose words and phrases that were meaningful to them in Stage 2, analysis was only conducted for the descriptions anxious and not great, as presented in Chapter 6. Most students preferred the greater autonomy provided in Stage 2, which allowed personal expression of words. This preference is unsurprising, given that many leading social theorists, such as Bandura, Erikson, Loevinger, Maslow, Piaget, and Vygotsky, have established the importance of autonomy in healthy human development (Ryan, Deci, Grolnick, & La Guardia, 2006).

Some classes adopted a greater degree of autonomy support than other classes. For example, Class D implemented an independent approach for the project in Stage 2, whereby students would enter the classroom and immediately collect their tapping books and complete the tapping quietly and individually before moving on to their next task. In this particular class, the teacher would remind students if she noticed that some students had forgotten to tap, which she gleaned from students who were “still stuffing around and chatting and stuff”
(Maria, Class D, S2). Autonomy support, along with competence, also appeared to be related to students tapping outside of the scheduled class tapping sessions.

In addition to the provision of greater autonomy, Stage 2 offered students increased privacy in oral expression, because students spoke softly while they were tapping. Students aged 10-12 are concerned about peer acceptance (Eccles, 1999), and are therefore sensitive to peer perceptions of them. Developmental psychologist, Erik Erikson, proposed that during the middle childhood years—ages 6-11—children compare themselves with other children and are sensitive to feelings of inferiority (Erikson, 1963). The students’ preference for greater privacy in the words they used while tapping appears to support Erikson’s theory in this aspect of child development.

Beliefs and expectations

Fourth, boredom may be experienced if students assume an activity is worthless. Because an activity that diverges from an individual’s set of beliefs and expectations is more likely to be rejected, students may be disinclined to proceed with performing tapping if they believe this activity is futile (Moerman, 2002). Some students had developed expectations about the capability of tapping, such as the impossibility of tapping to facilitate change—“tapping cannot change the thing” (Aria, Class B4, S1)—and these expectations may have created boredom in performing a task they believed to be meaningless. Furthermore, these expectations may have overruled any perceptions of change that may have otherwise been noted. In addition, some changes may have been perceived by students as minor and not substantial enough for tapping to be considered effective. Students’ observations of some changes after tapping may have been perceived as the regular fluctuations of responses they experience each day, and not a result of tapping, particularly if they believed that tapping could not effect change.
Other expectations held by students about the possibilities of tapping benefits may have resulted in disappointment if expectations were not met on each occasion that students tapped. This disappointment may have resulted in student boredom with class tapping sessions and the perception that tapping is ineffective. Conflicting responses from students such as Samantha in School D— “It didn’t really work,” and “I just felt the same [about doing school work],” and “I was piped down so I could focus more”—suggest an expectation that tapping would elicit greater change on occasions than simply the calming—“piped down”—effect that Samantha perceived.

In addition to some possible beliefs about tapping being worthless, there were some opinions of tapping being weird, hence the feelings of embarrassment, self-consciousness, or boredom that were displayed or expressed by some students. These feelings are likely to have been heightened as a result of peer influence, which was noted by all teachers and some students as a strong factor among Year 5 and Year 6 students. Students and teachers, alike, observed that some students participated either willingly or reluctantly, depending on peer group engagement. As described in Chapter 7, “Qualitative Results: What do students say?” Alexis (Class C2, S2) noted that the cool kids in the class did not like tapping, which may have affected the attitude towards tapping of other students in the class, and explained why some students may not have willingly engaged in the class tapping sessions. Interesting to note, is students in this class chose to continue with class tapping beyond the completion of the research project.

**Competing interests**

Fifth, an individual may have competing interests that divert attention from a presenting activity. Some students perceived that tapping delayed their engagement in their academic activities or that tapping consumed too much time—“we have to do it 3 times a
Competing interests may deter individuals from developing interest in a new activity, or may diminish interest in an activity, after an initial engagement period that may have provided a sense of novelty.

Although the previous sections—confidence and competence, understanding, manner of delivery and autonomy support, beliefs and expectations, and competing interests—may provide possible explanations for students’ expressions of boredom with tapping and the project, they do not provide an account of the efficacy of tapping. To illustrate, some individuals may consider some mindfulness practices or some class lessons to be boring, yet this viewpoint does not render the activities ineffective, even for students who may experience boredom. However, some students may have perceived that tapping is not effective because they associate boredom with ineffectiveness.

The student perceptions described above have illustrated the importance of schools supporting the psychological needs of competence and autonomy for assisting students to become self-motivated, or intrinsically motivated, in tapping. Although these needs are key elements for the development of intrinsic motivation, the need for relatedness, or connection, is also an important determinant of intrinsic motivation. For example, students are unlikely to develop self-efficacy or intrinsic motivation in autonomy supportive environments when they feel disregarded or emotionally detached from the teacher. Supported by many theories, including SDT and CET, secure and supportive relationships are integral to children’s healthy development (Bowlby, 1982; Steinberg, Bornstein, & Vandell, 2010). The following section discusses the importance of the psychological need of relatedness for the development of intrinsic motivation in students, and further discusses how this need affected the current study.
9.2.1 Relatedness

In SDT and CET, relatedness refers to the need for belonging and connectedness with other people (Ryan & Deci, 2000b). Individuals are more likely to accept and internalise values and practices of people to whom they feel a sense of connection and belonging (Niemiec & Ryan, 2009). The importance of relatedness as a psychological need is evident from infancy. According to Bowlby’s theory of attachment (Bowlby, 1982), infants with a secure attachment display greater intrinsic motivation to explore their environment than infants with an insecure attachment. A secure attachment is formed when an infant feels their primary care giver will provide support and safety whenever needed, and this attachment style is considered to be important for the development of an individual. Building on this need, a large body of literature substantiates the importance of students’ relationships with their teachers for student academic and emotional development (Downey, 2008; Graham, Powell, & Truscott, 2016; Gregory & Weinstein, 2004; Hamre & Pianta, 2006; Noble & McGrath, 2012; Patton et al., 2000). In particular, a review by Waters (2011) noted a likely reason for the success of some school-based positive psychology interventions was the established relationships with students.

For students in schools, relatedness can develop with teachers, other school staff, and other students. In the classroom, the psychological need for relatedness implies that students who feel they are valued by the teacher will be more willing to accept the activities presented, and the behavioural regulations imposed, by the teacher (Ryan, Stiller, & Lynch, 1994). Similarly, students who value or wish to be valued by other students will be more likely to adopt similar attitudes and engage in the same activities as the valued student group. In support of peer relatedness, studies cited by Roberts (2018) found that social connection is a primary reason for young people to engage in activities. The need for peer connection is
highlighted in the construct of peer pressure—an inclination that is commonplace among young people, and an important feature of student culture in schools.

The connection between the students and their class teachers was likely more relevant in the project than was the connection between the students and me. Apart from the introductory tapping session I presented, the teachers were responsible for administering the tapping sessions each day. Nevertheless, the brief relationships formed between students and myself, through my delivery of the wellbeing lesson and the introduction of tapping, may have affected the degree to which students embraced tapping and the project. I presented the project in a way that students would most likely relate to the associated activities, such as highlighting the importance of researching new ideas and techniques, with the project being set within a research framework endorsed by Charles Darwin University; my own experience with tapping, both personally and as a health professional; my experience as a primary school teacher; the relevance of tapping; providing information about sporting teams that have used tapping; and the interactive presentation of the lesson. Although limited, the relationship formed between myself and students appeared to be positive. The way in which students committed to the duration of the project, however, was most likely influenced by the relationships already formed with their respective teachers, and the degree to which their teachers embraced the project. In accordance with the construct of relatedness, students were more likely to have embraced the activities valued by their teachers if they had formed a positive relationship with their teachers. Assessing the impact of relatedness between students and teachers was not possible from the data collected, and was beyond the scope of the study. Nevertheless, some teachers embraced the project more than other teachers. Teacher attitudes and commitment to the project most likely affected perceptions of students who felt a sense of relatedness with their teacher.
Student perceptions about tapping were formed within, and influenced by, the social context of the classroom. In accordance with pragmatic epistemology, students derived their perceptions and knowledge of tapping through their actions and engagement in the project (Oquist, 1978). The concepts formed by students have been based on their lived experiences, and further transformed through new experiences and reflection (Laverty, 2016). Set within the pragmatic paradigm, the project provided students with experiences of tapping that were linked with classroom structures and routines. The following section discusses the nature of perception and the contextual influences and interactions presented in the project.

9.2.2 The nature of perception

Perception has been defined as “complex, meaningful experiences of external events or objects” (Mather, 2011, p. 173) that are acquired through sensations—the simple conscious experiences generated by stimulations of the sense organs (Mather, 2016). The sensations experienced by individuals are conveyed from the environment to the brain through neural impulses, resulting in the formation of perceptions (Passer & Smith, 2009). The inference that may be drawn, according to these definitions, is that perception is a cognitive construct, being the result of conscious meaningful experiences. However, human lives are enmeshed in, and exposed to, contexts and experiences that undoubtedly produce non-conscious effects on individuals—for example, the contact of air on the skin, exposure to subliminal messages, and the subtleties of the mood of other people present in an experience. Perception formation, therefore, although largely the result of conscious experience, must also include the impact of non-conscious elements. Accordingly, the reasons for particular perceptions formed may not be fully understood by the individuals themselves. The consciousness and attention dissociation framework offers an explanation of the relationship between perception and cognition, by highlighting a dissociation between attention and
consciousness, with interactions between the two states operating at different levels (Montemayor & Haladjian, 2017). The framework presents concept acquisition as an interface between cognitively penetrable perception and cognitively impenetrable perception systems. The practice of tapping engages multiple mechanisms that involve both cognitively penetrable and cognitively impenetrable perception systems, and individuals may not fully understand the reasons for their stated perceptions about tapping.

Perceptions of individuals are based on their unique perceptual sets—that is, the prior experiences that have informed their assumptions, attitudes, and expectancies (Bourne & Russo, 1998). Perceptual sets are therefore heterogeneous, yet contain common aspects among individuals, due to the social and cultural elements that shape people and influence their experiences. Inherent in perceptual sets are selection biases—individuals notice particular aspects of available data, while overlooking or discounting other aspects of information presented (Biggs, Adamo, Dowd, & Mitroff, 2015; Kan & Thompson-Schill, 2004). Because schools are set within social and cultural frameworks, they provide distinctive contexts for students as well as staff, which contribute significantly to their respective perceptual sets.

The settings for The Tapping Project (the project) were primary school classrooms in Darwin, Palmerston, and surrounding district in the Northern Territory. Schools in these particular geographic areas provided the social and cultural contexts for evaluating the effects of tapping among students. Perceptions of students about tapping were therefore influenced by their contextual interactions within the schools over the course of the project. Because perceptions are relational—that is, they are formed through the interaction of an individual’s perceptual set and the context of an experience—diverse perceptions may be generated when individuals experience the same activity at different points in time. For example, a personalised clinical context may be perceived by an individual to produce different tapping
effects compared with a social group setting, such as a school classroom. In addition, the perceptions formed in either the clinical or social context may vary on different occasions.

Individual change as a result of connections and interactions is foundational to Dewey’s educational philosophy, and is also representative of Deleuze’s model of assemblage. According to both Dewey and Deleuze, individuals perceive their current realities through the confluence of past experiences and the interactions of present contexts (Dewey, 1938; Marcus & Saka, 2006). In essence, individuals are unique and are always becoming, that is, they are continually moving through change. Accordingly, the perceptions of students gained from the current project were not homogenous, nor can they be considered to be fixed across time for individuals, because of the shifting relationships and variable forces that converge on students’ lives, moment to moment. As individuals encounter additional experiences in a variety of contexts, perceptions may therefore be subject to change. At the same time, perceptions are grounded in overarching cultural and social beliefs and structures. For example, most cultures present a fixed concept of the afterlife, or an established style of governance, and these beliefs and practices contribute to stabilising the perceptions of individuals on aspects related to these matters.

The nature of perception is therefore a mixture of both change and stability. Dewey referred to these features as “precarious” and “stable” traits of individuals’ experiences (Field, 2007, section 3, Metaphysics). From this perspective, perception is a shifting reality, continually formed from new experiences based on meanings derived from former experiences within presenting contexts (Dewey, 1934). Because truth is derived from perceptions, truth is ever changing and is continually being formed, based on functionality, or “what works” (McCaslin, 2008, p. 671). Individuals’ perceptions are unique, and what works varies from person to person. Pragmatic epistemology embraces continual change with the formation of perceptions, impacted by new experiences and changing environments.
As expected, the perceptions of students about tapping conform to the variabilities of individuality and context. As each new tapping occasion provided a new context for students, there were often variations and contradictions in individual students’ perceptions about tapping. Contradictions presented in student perceptions are not to be viewed as invalidating results, but rather, are consistent with continual change that is elucidated in pragmatic epistemology. Just as affective, cognitive, and physical states are in a constant state of flux for individuals, so too are the perceptions that describe these states. Regardless of particular states that were identified at any point in time, students perceived tapping to be more effective when the context supported the psychological needs of competence, autonomy, and relatedness.

9.3 Is EFT an Effective Modality for Reducing Anxiety and Distressing Symptoms in Year 6 Students?

A response about whether EFT is an effective modality for reducing anxiety and distress and improving wellbeing in students requires inspection of both the quantitative and qualitative results of the study, as well as an understanding of the determining features for effectiveness. Consideration of effectiveness was raised in the Preparatory stage of the study, in conversations with educational executive officers, school principals, and teachers. Typically, a research proposal in schools must include expectations of outcomes for the educational officers to assess the viability of the proposal. In my conversations with educational personnel, I provided information on my clinical and workshop experiences of tapping with individuals. I also provided a short video that showed school students in the middle years (aged 10-13 years) tapping, along with favourable commentary about tapping spoken by the featured school principal and other school staff. The decision for educational officers to embark on the project was based on their perceptions of the possible effectiveness.
of tapping. Executive officers, principals, and teachers agreed that, if tapping helped only some students, the project would be worth implementing, providing no harm was caused to other students, and the project was not onerous on classroom teachers. In summary, the current study showed that many students were assisted by tapping. EFT, therefore, can be deemed to be an effective modality for Year 5 and Year 6 students. The following discussion of results describes the observed reduction of anxiety and distressing symptoms in participants as a result of tapping.

Most students were less anxious after tapping than they were before the project commenced. Quantitative results showed that student anxiety dissipated over the two stages of tapping, although significance in anxiety reduction was limited in a subset of classes. Although student anxiety scores generally decreased over the course of the project, this outcome was not maintained once the project was completed, when students were no longer tapping each day. Qualitative results from some teachers also revealed that students in classes were calmer over the course of the project, and students in one class decided to continue tapping after the project was completed. Furthermore, beyond the term of the project, School C has embarked on a whole school tapping program, School B has implemented tapping in the younger year levels—pre-school to Year 2, and School A has nominated a tapping program for Year 2 classes.

Feeling calmer after tapping was the most common response of students. Feeling calmer was also associated with students concentrating and focusing better. In addition, students tapped to calm themselves in a range of situations, such as academic work, sporting events, and other performances. In particular, quantitative results showed that students who specified they were anxious before performing the tapping protocol, were likely to feel better after tapping, although this outcome was not found in students who specified other words while tapping. In addition, statistical analysis showed that students who were least anxious
felt most improved from tapping. This result was also supported by qualitative data from students who stated that tapping did not improve their state or mood when they felt extremely low, as expressed by Finn in Class B2: “When I get close to zero (feeling really bad) and I do the tapping, it just doesn’t help. But when I’m up to five, it does help sometimes.” The apparent ineffectiveness of tapping for high anxiety states could be indicative of specific upset or trauma experiences. EFT is more effective when targeted to individuals’ specific experiences (Craig, 2008). The current study was not designed to focus on students’ specific issues, which may have resulted in lower efficacy in students who were experiencing low emotional states.

Interestingly, the difference in results between the first and second administrations of the RCMAS-2 assessment instrument showed a discrepancy between Class A and all other classes. For classes in Schools B, C, and D, the mean of the student scores decreased with the second administration of the RCMAS-2, compared with the mean of the first administration, indicating a decrease in students’ anxiety over the project period. In Class A, however, the anxiety scores of most students increased on the second administration of the RCMAS-2. Different to other classes, the assessment instrument was administered in Class A in the afternoon, by the teachers, in separate boys’ and girls’ wellbeing classes. In all other classes, I administered the instrument in the morning to whole classes, or on one occasion, to combined classes in School B. Although the teacher of Class A girls’ group applied the usual procedure in administering the questionnaire, that is, each student completed the form, the teachers of the boys’ group used the questionnaire as the primary guide for the wellbeing lesson. Each item in the instrument was discussed separately by the class, after which each boy circled his answer. The boys’ teachers stated this lesson was excellent, because the boys became more comfortable in discussing difficult emotions, and displayed greater honesty about their responses to the statements contained in the questionnaire. Procedures for
administering the second RCMAS-2 may explain the difference in Class A results to all other classes.

Class A teachers also explained why the RCMAS-2 results of their students may have diverged from all other classes. First, teachers noted that a large cohort of students had experienced significant trauma. For many of the students, school is a safe zone. In the afternoons, when the assessment instrument was administered, teachers noted that students were already feeling worried about returning home, and this increased worry may have skewed the student assessment responses. Second, and consistent with the previous explanation, teachers noted that the afternoon is the most challenging period of the day for Class A, and is the most difficult time to engage students in activities. Teachers, therefore, identified the afternoons as the most useful time to conduct tapping sessions in Stage 2. For this class, in Stage 2, tapping was performed only once a day, in the afternoon. Class A teachers also noted the students’ disinterest for writing in the books; however, the teachers noted that students enthusiastically engaged in tapping. Furthermore, teachers noticed positive effects with students tapping, noting that particular individuals, including students with special needs, benefitted from tapping. Students who were new to the class during Stage 2, however, were perceived by the teachers not to have benefitted appreciably from tapping.

9.4 **What are the Perceptions of Teachers Related to Using EFT?**

(a) How difficult is tapping to learn and administer?

(b) What have been the effects of using EFT with classes? Have there been any changes in students in the areas of behaviour, performance, and concentration?

(c) Do teachers feel any difference in their own emotional, cognitive, and motivational states after using EFT?
A detailed description of teachers’ perceptions about tapping appears in Chapter 8, “Qualitative Results: What do teachers say?” Unanimously, teachers shared the opinion that tapping is “a very useful tool for the children” (Audrey, Class B1, S1), regardless of the effects that teachers perceived about tapping for themselves. Teachers also thought that tapping should be taught to all students in primary schools. Importantly, teachers experienced no concerns about students tapping. In summary, the main themes that were identified in teacher perceptions about tapping were tapping as a mechanism for change, transferability of skills, and tapping is not always effective. These themes were found to be representative of teachers’ perceptions about tapping for themselves, as well as their perceptions about students tapping.

Most teachers embraced the research for the duration; however, one teacher did not participate in Stage 2 of the project. In addition, Class A sought an extension of Stage 2, because only a few tapping sessions had been conducted in the nominated 4-week period. The teachers ascribed this deviation from the scheduled tapping sessions to the busy program of the school. Some teachers, however, were more committed to the project and were more consistent with tapping sessions, even though, for most classes, adherence to the tapping schedule was reduced in Stage 2, relative to Stage 1.

### 9.4.1 How difficult is EFT to learn and administer?

The project was intended to provide students and teachers with techniques that could promote student wellbeing. Although I was the person to initiate this project in schools, the classroom teachers were instrumental in implementing the project in both stages. In my instruction sessions, teachers and students were taught how to perform the tapping protocol; however, I did not assess any levels of competence. Teachers were provided with two 1-hour sessions of tapping, which included guidelines for implementing the project in their classes.
My introductory tapping sessions with students were around 1-hour duration, set within a wellbeing lesson for each class. Subsequent class tapping sessions were led by the class teachers or, in some cases, teachers recruited student volunteers to lead the sessions.

Although the tapping protocol is relatively simple and easy to perform, some teachers, along with some students, may not have felt competent in the tapping protocol. Towards the end of the training sessions, teachers were asked about their understanding of the project implementation and their confidence in leading tapping sessions with students. Although all teachers indicated they felt confident to persist with the project in their classes, competence levels were not assessed, and the interim period between training sessions and the commencement of tapping in classes may have diminished the confidence and enthusiasm levels of teachers.

According to social cognitive theory (Bandura, 1986), the degree of competence that individuals believe they possess about an activity influences their level of confidence in performing the activity, and some teachers may have been reluctant to lead tapping sessions if they felt uncertain about their levels of competence in using the techniques. Students also may have been reluctant to tap in group sessions if the teacher displayed limited confidence with the activity. Furthermore, only students and teachers who believed they were competent in performing tapping were likely to tap in contexts beyond the class tapping sessions.

Because of the continual interruptions and changes in school programs, routines, and staff that warrant constant problem solving, schools must operate within a pragmatic framework. Accordingly, flexible delivery is an important feature in administering programs in schools. For the current project, most teachers adopted a flexible approach in administering the tapping sessions that suited their busy and changing programs. For example, classes that were assigned a substitute teacher at the commencement of the school day, when tapping was scheduled, may have performed the tapping session later in the
morning when the class teacher returned to the classroom. Not all teachers adapted the tapping sessions to suit shifting class schedules, however, and some teachers abandoned tapping sessions on occasions for various reasons, such as the assignment of a substitute teacher, or when unforeseen situations arose. For one class, tapping was not applied during Stage 2 after my initial session of introducing the new stage of the project. Non-engagement in Stage 2 was ascribed to: changed class programs because of an initial period of teacher absence and the need for substitute teachers, the observation that students did not remind the teacher about the tapping sessions, and the busy term that resulted in the teacher not achieving all her goals. Despite these challenges, this teacher still regarded tapping as a useful technique for all students to learn and apply, according to their individual needs.

Teachers frequently spoke about the overcrowded schedules of schools, and some teachers used the tapping techniques to help calm themselves from feeling overwhelmed. Clearly, tapping programs for classes must not be perceived as onerous by teachers, which would amplify their feelings of overload. To be useful in classrooms, tapping must be perceived by teachers as a tool that is supportive, rather than burdensome. To achieve this goal, teachers must feel competent to integrate tapping programs into busy schedules. Assessing levels of competence, and rewarding competence through the standard educational methods of certification, may boost teachers’ confidence and empower them to apply tapping spontaneously, whenever required, in a range of contexts for themselves and students.

Recent commentary by Gaesser recommends that school personnel undertake three hours of formal EFT training, followed by personal practice, before implementing tapping with students (Gaesser, 2020). This recommendation also aligns with research on teacher training for mindfulness practice, that found wellbeing was significantly improved by course participants when mindfulness programs were administered by teachers with higher levels of training (Ruijgrok-Lupton, Crane, & Dorjee, 2018).
9.4.1.1 Student book and tapping protocol

Teachers confirmed that some students were reluctant to use the project book, especially in Stage 2. For many classes, encouraging students to write in the books was the most difficult part of the project that teachers experienced in Stage 2. In contrast, there was negligible resistance to using the book in Stage 1. As discussed earlier in this chapter, the project book presented another level of control for students, which, for many students, impaired their enthusiasm for engagement in the tapping process. The book requirement, therefore, especially in Stage 2, presented some problems for teachers administering the tapping sessions. However, teachers recognised that student resistance to the book was separate from the tapping exercise itself, and some teachers continued class tapping sessions, with autonomy support for students making their own choices about use of the book. Although the book issues may have affected outcomes of tapping in classes, teacher perceptions about tapping’s efficacy was still positive, and they maintained the opinion that all students should learn how to tap.

9.4.2 What have been the effects of using EFT with classes? Have there been any changes in students in the areas of behaviour, performance, and concentration?

This section discusses changes in students that teachers observed as a result of tapping. Teacher observations of changes in students are not necessarily aligned with students’ perceived effects of tapping. Furthermore, teachers unanimously acknowledged the busy and sometimes overwhelming school schedules, which they thought diminished their observations of the effects of tapping on students.

Teachers observed a range of changes in their students’ behaviour, performance, and concentration as a result of tapping. Important to note is that tapping elicited no negative
effects on students. The most common observation reported by teachers about tapping was that students became calmer after tapping sessions; however, some students exhibited no observable effects from tapping. Student enthusiasm for tapping and the project was noted by teachers in Stage 1, but the same level of enthusiasm was not present in Stage 2. Teachers assumed that students became bored with tapping sessions in Stage 2, and this perception was generally attributed to the related book component of the project, as discussed in the previous section. Consequently, most teachers relaxed the book activity in Stage 2.

In CE schools, all teachers noted their classes were calmer during the two stages of the tapping project, and that the behaviour of some students, in particular, improved. Furthermore, when the daily tapping sessions ceased, teachers noted that student behaviour deteriorated. Because teachers noted the calming effect of tapping on students, teachers sometimes initiated additional tapping sessions. For example, one teacher performed tapping sessions before recess, to assist with student behaviour in the playground, in an attempt to avert potential problems arising during the recess break. In another class, the teacher observed that unsettled behaviour of individual students in class in the mornings, after recess, and after lunch breaks, indicated that these students had not performed their tapping routine. After a reminder message from the teacher, the particular students tapped and then became more settled.

In all classes, tapping was generally perceived by teachers to benefit individual students—“she’s smiling … she’s lighter on her feet” (Mary, B2, S2)—but not affect other students—“The kids said it was great, but I didn’t notice the silly ones being less silly” (Naomi, B4, S1). Furthermore, teachers in NTDoE schools noted that students with special needs and students who were vulnerable to mental health conditions particularly benefitted from tapping. These students were observed as calmer after tapping, which helped them to engage better in their class work. Whether students with similar conditions in CE schools
may have particularly benefitted from tapping is unknown, because these student groups were not identified by teachers in CE schools.

Teachers did not report any changes in the performance of students, apart from improved application to their work by some students after tapping. However, teachers noticed students tapping before performance activities, such as classroom tests and academic work, sporting events, oral, and musical presentations. In addition, students were noticed tapping in other contexts, such as at church or in assembly.

9.4.3 Do teachers feel any difference in their own affective, cognitive, and motivational states after using EFT?

Even though the focus of this study was student wellbeing, greater benefits will be derived if teachers, as well as students, perceive some improvements in their own wellbeing states after tapping. For this study, teachers mostly tapped on themselves while leading students in the tapping exercise. They were, therefore, focused on the students rather than themselves. Teachers were given a student tapping book for themselves; however, these books were not used by teachers to record their own SUWS. The teacher training sessions had focused on students tapping and using the books, and no instruction was given for teachers to keep personal records of tapping sessions. Nevertheless, when asked in interviews, most class teachers reported occasions they felt the benefits of tapping, even though they noted they were more focused on the students than themselves.

Teachers reported the tapping effects of feeling calmer or more relaxed for themselves. On reflection, tapping with students in class was noted by several teachers to reduce their own levels of anxiety and stress. In addition, one teacher who was familiar with EFT before the commencement of the project, stated that she continues to tap regularly to alleviate stress. On occasions outside the schedule class tapping sessions, two teachers
reported that tapping reduced physical discomfort of headache, and other staff stated that tapping assisted with sleep.

9.5 Is EFT an Effective Modality when Administered as a Class Activity?

The study raises questions about evidence and measures of effectiveness, with the principal question being: how do we determine whether the project has been effective? A decision about the effectiveness of this project is an important factor in the consideration of tapping being considered an effective modality and a viable intervention for primary school classes.

A comprehensive response to the principal question requires the exploration of other related questions. First, have the outcome measures used in the project provided reasonable evidence for the effectiveness of tapping for primary school students? Second, how are opposing outcomes and perceptions resolved, such as the mixture of responses, in which some students have benefitted from tapping on some occasions and not on other occasions, or some students showed no positive benefits? Third, what weight should be placed upon teachers’ perceptions for determining the effectiveness of EFT as a class modality? Responses to these questions are explored in the following sections.

9.5.1 Have the outcome measures used in the project provided reasonable evidence for the effectiveness of tapping for primary school students?

The first question to be explored regarding reasonable evidence for the success of the project raises an additional question, namely, what constitutes reasonable evidence? In response to this question, I propose that reasonable evidence is provided by positive outcomes shown by both independent methods of inquiry used in the study. To this end, both quantitative and qualitative measures used in the mixed methods research have provided
positive outcomes from the investigation, and therefore, reasonable evidence is provided. In addition, supplementary information to the study’s results, such as schools—both participant and new schools—requesting additional teacher training sessions and extending tapping to new classes, provides further positive evidence for tapping in primary schools.

Both quantitative and qualitative methods have independently shown benefits of tapping for students and teachers in schools. Specifically, the quantitative measures used in the study have presented some significant outcomes of the benefits of tapping, along with some positive trends. Overall, most students showed lower levels of anxiety after the tapping project than before the project commenced. In addition, students who specified they felt anxious before tapping sessions felt better after tapping.

These quantitative results were collaborated by the qualitative analysis. Positive effects of tapping for students and teachers were further identified in the qualitative data using thematic analysis. The two themes common to both the student and teacher data sets, tapping as a mechanism for change and transferability of skills, identified positive effects of tapping for both students and teachers. For students, the first main theme, tapping as a mechanism for change was divided into the sub-themes affective change, cognitive change: confidence and academic focus, and physical change, that represented the types of positive tapping effects that students identified. The second main theme, transferability of skills, was divided into sub-themes, in school and outside school, that represented the contexts that students applied tapping for themselves. A description of the positive effects of tapping for students and teachers has been presented in the respective sections, 9.2 and 9.4 of this chapter, with full results from the student and teacher qualitative data sets presented in Chapter 7 and Chapter 8, respectively, of this thesis. Because positive outcomes were experienced by many participants, and the evidence has been supported by both quantitative
and qualitative analyses, reasonable evidence for the effectiveness of tapping for primary school students may be inferred.

9.5.2 How are opposing outcomes and perceptions resolved?

In exploring the second related question on the mixture of responses and opposing outcomes and perceptions, I refer again to the nature of perception. Within the pragmatic paradigm, non-consistent responses from students, across time, do not represent invalid results about tapping effects. Rather, these differences are more consistent with the reality of perception and the reality of wellbeing, both of which are subject to constant change. Wellbeing interventions, such as pharmacological and psychological treatments, are seldom magical solutions for individuals on all occasions, and this reality does not invalidate their functions. In addition, some interventions are not effective for some individuals for various reasons, such as negative physical reactions or psychological aversion. The range of responses that students experienced from tapping was varied, as expected. Important to note in evaluating tapping for Year 5 and Year 6 students, is that most students experienced some positive outcomes over the course of the project.

9.5.3 What weight should be placed upon teachers’ perceptions for determining the effectiveness of EFT as a class modality?

The third related question requires a decision about the importance of teachers’ perceptions when considering the effectiveness of EFT as a class modality. Teachers are the key players in the administration of classroom activities and, in this regard, are crucial to the implementation of class programs. Effectiveness of programs is largely dependent on the attitudes of teachers and the manner in which programs are presented in classes. Given that the beliefs which teachers hold about particular subject material affect their instructional
practice (Anderson, Boaler, & Dieckmann, 2018), teacher attitudes about tapping will influence the manner in which they introduce and adopt tapping in their classes, which will, in turn, influence the overall effectiveness of the activity. If teachers are interested in a particular program, the interest levels of students in the program are also likely to be enhanced (Long, 2003). Furthermore, teacher quality—which may be defined by the blend of teachers’ classroom practices, subject knowledge, professional development, teaching experience, and quality of relationships with students—has been found to be instrumental in the engagement and academic achievement of students (Naylor & Sayed, 2014). Teacher quality is also likely to play a key role in student social and emotional learning.

Although teachers perceived that tapping benefitted some students, but not all students, all teachers considered tapping to be a simple and useful strategy that primary school students across all year levels should learn. Teachers further considered that students could initially be taught tapping as a class technique and, as competence levels increased, Year 5 and Year 6 students could be encouraged to use tapping in a more independent manner. In this regard, tapping could be used by students according to their individual needs. Issuing reminders and applying the techniques as a class activity on occasions were also considered to be constructive elements in reinforcing the tapping techniques as a simple wellbeing strategy for students.

In summary, the responses to the questions posed in the preceding sections relate to the assessment of the study’s effectiveness. First, reasonable evidence provided by analytic processes has supported the effectiveness of tapping with Year 5 and Year 6 students; second, variation and contradictory responses from students does not invalidate these purported tapping effects; and third, teachers’ perceptions are instrumental in the success of a program’s implementation and, in this study, all teachers considered that all primary school students should learn tapping in classes. Drawing on these responses, The Tapping Project
may be considered to be effective in reducing anxiety and producing positive effects for student wellbeing states. These results are prerequisites for exploring the research question, *Is EFT an effective modality when administered as a class activity?*

### 9.6 EFT supports the school curriculum

Beyond the prerequisite results noted in the preceding section, an intervention must also align with school curriculum and classroom practices, to be considered an effective modality for a class. In this regard, EFT supports the Personal and Social Capabilities Learning Continuum set by the Australian Curriculum, Assessment and Reporting Authority (ACARA, n.d.). The Continuum is organised into four elements of self-awareness, self-management, social awareness, and social management, and provides key ideas for enhancing students’ social and emotional skills and practices. Specific competencies are described for each of the elements:

- **Self-awareness:** recognise emotions; recognise personal qualities and achievements; understand themselves as learners; develop reflective practice;
- **Self-management:** express emotions appropriately; develop self-discipline and set goals; work independently and show initiative; become confident, resilient, and adaptable;
- **Social awareness:** appreciate diverse perspectives; contribute to civil society; understand relationships;
- **Social management:** communicate effectively; work collaboratively; make decisions; negotiate and resolve conflict; develop leadership skills.
Some of the ways in which tapping facilitates the development of skills in these four domains, as demonstrated by the results of the current study, are:

- **Self-awareness**: Students are more attuned to their emotional states through the reflective practice of the tapping activity;

- **Self-management**: When students are calmer, they can express themselves more appropriately (Sun, Yao, Wei, & Yu, 2015), feel more confident (Goette, Bendahan, Thoresen, Hollis, & Sandi, 2015; Gudykunst & Nishida, 2001), and improve their focus on academic work and in other performance contexts (McCraty, Atkinson, Tomasin, Goelitz, & Mayrovitz, 2012);

- **Social awareness**: Self-compassion and kindness for others is associated with a calm, emotional state and social connectedness (Kirschner, Kuyken, Wright, Roberts, Brejcha, & Karl, 2019) that may be achieved by tapping;

- **Social management**: Students develop more appropriate and effective communication through reduced emotional responses, as a result of the calming effect of tapping (Gudykunst & Nishida, 2001).

The current study has shown that tapping supports the Personal and Social Capabilities Learning Continuum in relation to specific competencies for students’ social and emotion learning. Given that tapping supports the essential criteria required for classroom application, the EFT techniques can be considered an effective modality when administered as a primary school class activity.
9.7 Are the Skills Learnt in EFT Applied by Students or Teachers Outside the Classroom Setting?

Both students and teachers applied tapping outside the scheduled tapping sessions. Reasons for teachers tapping included the desire to feel calmer, to assist with sleep, and to relieve headache symptoms. Reasons for students tapping included the desire to feel calmer, to improve focus and concentration, and to reduce physical symptoms. Some of the contexts and more specific reasons for tapping by students were:

- in the classroom for tests and academic work, and to overcome low mood;
- in the school playground for playing games and for emotional upset at peers;
- at home if emotionally upset at family members;
- frustration when playing video games;
- to overcome boredom during movies;
- to relieve pain and physical disturbances, such as stomach ache and shaking hands;
- to assist with sleep;
- to assist with feeling calmer prior to performances, such as sport, music, and speech.

In addition to tapping outside the scheduled tapping sessions, students communicated their knowledge about tapping to other people, either by sharing information about tapping or by showing other people how to tap.

Not all students and teachers tapped outside the scheduled tapping sessions. Forgetting was the most common reason expressed for not tapping. Forgetting to tap has been identified in other study participants (Boath et al., 2013), and is commonly stated among my clinical clientele. Even though individuals may have perceived benefits from tapping,
they still forget to use this technique when they are feeling in a state of discomfort. Furthermore, even if people think about using tapping for their discomfort, they often do not follow through with the actions. This response is not unique to tapping; many individuals who have experienced the positive effects of some other activities, such as meditation, healthy eating, and exercise, will resist engaging in these activities on occasions, a phenomenon known as akrasia (Mele, 1987).

Apart from akratic action for non-engagement in an activity, limited confidence and feelings of reduced competence with the techniques may be other reasons for individuals to refrain from tapping. Some individuals may think they do not have sufficient information about tapping or sufficient skill level to use the techniques for themselves. A further reason that individuals do not tap is likely linked to the unfamiliarity of the concept. Even though individuals may have learnt about tapping and how to apply tapping techniques, and they may have experienced positive effects from tapping, they still may feel uncomfortable performing the actions, especially if they view tapping as strange.

Although tapping is commonplace in China and some other Asian countries as a wellbeing technique, for most individuals raised in Western countries, tapping has not featured in their lives. Because tapping is a relatively new technique in Western countries, people, in general, have not been exposed to the intervention, either clinically or as a self-help technique. Understandably, some individuals feel uncomfortable with this unconventional technique, and they may question whether the intervention actually enhances health and wellbeing. In clinical settings, individuals will commonly discredit the effects of tapping, even when improvements in the clients’ wellbeing states, after tapping, is apparent to both the clinician and the clients. Clients may explain their improvements in other terms, such as “I really didn’t feel too bad anyway, today,” or “I’ve already done a lot of work on
this problem.” This phenomenon of discrediting positive outcomes that have been derived from the use of particular techniques has been termed the apex problem.

**9.7.1 The apex problem**

The word apex was used by Arthur Koestler (Koestler, 1967) for describing the instances when individuals function at the peak of their intelligence and perceptual ability (Gallo, 2005). The apex problem, therefore, describes an impediment to optimum cognitive functioning (Figley, 2002). Dr Roger Callahan, founder of EFT’s parent intervention, thought field therapy (TFT) and Gary Craig, founder of EFT, identified the apex problem as a common feature in energy therapies. Often, when individuals feel better after tapping, they will disregard the effects of tapping and attribute their improvements to other factors.

EFT is a simple intervention and may produce relief rapidly (Feinstein, 2012). The simplicity of the techniques, and the speed with which relief is experienced, or both, may counter the expectations of individuals when applying health interventions, particularly if a problem has existed for an extended period of time, and other interventions have been undertaken. Gallo (2005) relates this discrediting behaviour to cognitive dissonance, where the benefits that have been attained from the techniques are beyond the individual’s set of beliefs. Rather than attribute the positive effects to the tapping intervention, an individual may justify the benefits in other ways, such as being distracted, changing their thinking about the problem, or dismissing the impact of the problem. The main problem that cognitive dissonance poses for healthcare, is that individuals are less likely to use an intervention if they fail to ascribe the positive effects they have experienced to the intervention. These individuals are, therefore, denied interventions that may enhance their wellbeing.

In the current study, the apex problem in relation to tapping was displayed among some participants. For example, some students and teachers expressed the reason that
tapping helped them was that they were distracted from their unpleasant issue. In other EFT research, adult participants have also attributed tapping’s effectiveness to distraction (Boath et al., 2017). Similarly, in my own clinical practice, adult clients often query the mechanism by which EFT produces results, and many clients ascribe the benefits to distraction. In the current study, few students queried how tapping worked, so limited attention was devoted to the mechanisms applied in tapping. Students in Years 5 and 6 may not have attained the developmental level for enquiry or suggestion about the mechanisms of tapping. Mechanisms that underlie EFT have been discussed in Chapter 3 of this thesis.

9.8 Limitations of the Current Study and Future Research

Inherent in any research are limitations and weaknesses that may have influenced the study’s findings. Greater transparency, through the illumination of the study’s constraints, can assist readers to assess the study’s findings more broadly, and can assist researchers in future study proposals, with consideration to improved research methods.

One particular weakness of all research is researcher bias that may be contained in the interpretation of results. Given that the researcher decides the topic for study and is central to actions chosen at all stages of the research (Morgan, 2014), full impartiality is dubious in all research.

9.8.1 Researcher bias and power imbalance

The following factors illuminate possible research bias in the current study. The choice of research topic arose from positive clinical outcomes, both reported and observed in my psychology practice, when individuals and groups have used tapping. I have therefore approached this study from my experience of positive outcomes with individuals and groups using tapping. This standpoint is unsurprising; conversely, an intervention that has produced
negative or null results, is unlikely to generate interest for larger scale research. My experience as a primary school teacher, that may also contain bias, contributed to both the selection of methodology for the study, as well as the reflexive processes. However, this influence may be considered a strength rather than a limitation of the study, because of the professional knowledge and understanding that assisted the undertaking of the study. Reflexivity processes were anchored by my experience in schools and the need to be adaptable and flexible amidst the changing demands within school environments. Comments from schools stating that the research was “well organised” (teachers, School B) and “seamless” (principal, School C) supports the value of the researcher having professional knowledge about, and experience in, working in schools.

As discussed earlier in this chapter, face-to-face interviews with students may have elicited answers that are biased towards the interviewer and produced comments that students considered were favourable. To mitigate bias in student interviews, the research methods incorporated approaches to elicit accurate student feedback about the project, and these measures have been described in Chapter 4, “Methodology.”

### 9.8.2 Methodology

The current study’s methodology presented several limitations. Firstly, the sample was not randomised. Rather, NTDoE schools for the research were engaged through my personal knowledge of the school principals, which may have encouraged their participation in the study. Similarly, the CE schools were nominated by the principals’ consultant, based on her personal opinion of the likelihood of the school principals’ interest in the study. The teacher and student participants were therefore convenience samples, drawn from schools that were directly approached. Apart from the random selection of classes for the number of tapping sequences performed, students were not randomised for the intervention approach—
all students performed the same tapping procedure—as I considered that a uniform process was the least intrusive method for overburdened teachers.

The study’s impact on teacher loads was a primary consideration in the pragmatic research approach. Future research may consider a cluster selection for participant engagement, which would reduce selection bias. Furthermore, participants in classes could be randomly divided into two groups, where one group performs the tapping protocol and another group, a different protocol using alternative points, or some other intervention or routine. Cluster groups with random allocation of students to the EFT intervention and different or alternative interventions would reduce the possibility of results containing innate characteristics that exist between similar groups, thereby increasing the validity of the study.

9.8.2.1 Participants

The choice of Year 5 and Year 6 student participants presented challenges of peer pressure affecting individual student responses. Peer pressure may have been avoided by selecting younger participants. Future research may engage younger students; however, alternative challenges would be raised with younger ages, because of their reduced levels of emotional development and literacy.

Some of the reported quantitative measures recorded in student project books did not align with comments that students wrote about the effects of tapping. For example, some students recorded an increase in wellbeing scores after tapping, yet their comments suggested that tapping was ineffective or compromised their mood. Conversely, some students recorded the same scores before and after tapping, or a lower score after tapping than before tapping, suggesting they felt no different or they felt worse after tapping, yet their comments suggested they felt better. Eliminating discrepancies in children’s perceptions, arising from their verbal and written records, may not be possible; however, future research may use
participant selection and research methods that mitigate the occurrence of inconsistent responses. Student ages and developmental levels are relevant considerations for this issue.

### 9.8.2.2 Teacher training

A methodological limitation of the current study was the time allotted to teacher training sessions. Training periods were based on consideration of teacher workloads, and two 1-hour sessions were provided for teachers at the end of school days. The time allocation may have been insufficient for teachers to feel adequately qualified for administering the tapping sessions in class. Teachers were not assessed on their levels of competence with tapping, and one teacher joked that the students knew how to tap better than she did. Fidelity of delivery of the tapping sessions was, therefore, not maintained throughout the project. Future research may extend and formalise teacher training, to provide greater understanding about EFT, and to assess teachers’ levels of competence and confidence in administering tapping sessions with students. This action has also been recommended by Gaesser (2020). Additional teacher training may also improve fidelity in delivery of tapping sessions.

### 9.8.2.3 Procedures

The timing of student interviews and the administration of the second RCMAS-2 instrument presented challenges in some schools and inconsistencies across schools. These research activities were scheduled at the completion of each tapping stage, and were conducted during school time. For some schools, interviews were conducted in the final week of the term, which is often less structured than other weeks in the term. Often, in the final week, classes are combined, and different activities are provided for students. In one school, the RCMAS-2 was administered to students when two classes were combined and ready to commence an activity. This setting was inconsistent with the first administration of
the instrument, which was conducted within each class group with students sitting at desks. The larger group context and more informal setting may have affected student mood and responses to the questionnaire. Furthermore, students who engaged in interviews within this more informal end-of-term context may also have been reluctant to spend time in the interview sessions, due to competing interests with the concurrent group activities.

As noted earlier in this chapter, the context for administering the second anxiety psychometric instrument was different in Class A than in all other classes. In Class A, the questionnaire was administered by teachers during an afternoon wellbeing class, with girls and boys in separate groups. This method presented an inconsistency across classes—all other classes completed the instrument in morning sessions, which I administered. This inconsistency may have accounted for the anomaly in Class A results in the second administration of the RCMAS-2. Future research could aim for greater consistency across groups in the administration of research instruments. Difficulty in obtaining consistency, however, arises when researchers work across schools with different schedules and across wide geographic areas.

### 9.8.2.4 Mixed methods methodology

A strength of the study is the use of mixed methods methodology that was able to provide a broader understanding about the use of tapping in classes than a single method approach would have provided. Alignment of results gained independently, through both quantitative and qualitative methods, have strengthened the study’s validity. However, each of the overarching methods present limitations. Quantitatively, a single psychometric test for anxiety was administered to students. The study would have been strengthened by administering more than one standardised test for anxiety, or testing other traits that tapping may have affected, such as student levels of self-efficacy, and future studies may incorporate
additional quantitative measures. The inclusion of additional measures, however, poses pragmatic implications for classroom management, particularly in primary schools, where students’ emotional, cognitive, and literacy levels are lower than students in secondary schools, and this issue warrants consideration for future researchers.

The second quantitative measure used in the current study was the student Subjective Units of Wellbeing score (SUWS). This self-reporting measure was completed before and after tapping, and students’ SUWS were recorded into student project books. As the study progressed, both students and teachers found the books a hindrance to the tapping procedure. Future studies may record SUWS through means that are less cumbersome than the process of distribution or retrieval of student books, with the additional time factor involved. For example, an independent school in the Darwin-Palmerston area has initiated a more streamlined method for students recording SUWS. A teacher in this school, on becoming aware of the current study, collaborated with me for introducing tapping in the school. Several weeks after I implemented tapping in the Year 2 class, the teacher developed an electronic version of SUWS that included the date, time of day, and an array of emoticons from which students chose their SUWS before and after class tapping sessions. This instrument was developed for student IPads, and is more elegant for busy classroom use, where students quickly click through the date and time of day, and select their before and after SUWS from the emoticons menu.

9.9 Summary of Chapter

This chapter has provided responses to, and discussion of, the study’s research questions through the lens of cognitive evaluation theory within the overarching theory of self-determination. The psychological needs of competence, autonomy, and relatedness that are regarded as important elements in the development of intrinsic motivation were found to
affect the level of student engagement in class tapping sessions and associated project activities, as well as the inclination of students to tap for themselves on other occasions. This chapter has also discussed the nature of perception as a mixture of both change and stability in relation to the model of assemblage. Furthermore, the perceptions of students and teachers related to tapping have been described, along with the quantitative results that have supported, in part, the qualitative outcomes of the study. The discussion has presented the ways in which the pragmatic framework chosen for the research have influenced the methods and practices used throughout the study. Furthermore, the chapter has illuminated the limitations of the study and has provided suggestions for future research.
CHAPTER 10
CONCLUSION

This research extends the growing number of studies that have shown the efficacy of EFT for a range of conditions among individuals and groups. Among the research, few studies have represented primary school students. This study presents original work as the first research that evaluates the effects of EFT when used as a whole class technique in primary schools. The purpose of the study was to investigate whether EFT, also known as tapping, is an effective technique when used as a class intervention, to decrease student anxiety and improve wellbeing. Ongoing tapping in some schools beyond the research period, as well as the adoption of class tapping in new schools, from learning about this research, demonstrates to some degree, the efficacy of tapping for primary school students.

10.1 Research Overview

The current study was conducted with a convenience sample of Year 5 and Year 6 students and their teachers during Term 2 and Term 3 in 2018. Student wellbeing was the core focus of the research, and teachers were included in the study to administer tapping in classes, and to ascertain their perceptions about the effects of students tapping. The study’s setting was northern Australian schools, comprising two Northern Territory Department of Education (NTDoE) schools and two Northern Territory Catholic Education (NTCE) schools in the Darwin, Palmerston, and surrounding area.

This longitudinal study was framed within the pragmatic paradigm to accommodate the flexible nature of schools, and incorporated a mixed methods methodology. Teachers received instruction on how to administer tapping in classes. Tapping was administered in classes 3 times a day—in the morning, after recess, and after lunch—for a period of 4
weeks—Stage 1—during Term 2, followed by a second 4-week period of tapping—Stage 2—during Term 3.

Quantitative and qualitative measures applied in the study explored the research questions. Quantitative measures included the Revised Children’s Manifest Anxiety Scale - second edition (RCMAS-2) and Subjective Units of Wellbeing scores (SUWS). Qualitative methods included interviews and written feedback from students that were collected through project books and self-reflection papers. Teacher perceptions of students tapping were gathered through teacher participation in interviews at the end of each tapping stage, and informal reports by staff about tapping. In addition, teachers provided their perceptions about the effects of tapping on their own wellbeing and life. My observations and reflective comments formed a secondary qualitative data source.

### 10.2 Key Findings of the Research

Findings suggest that EFT can be used among Year 5 and Year 6 students as a class intervention, supporting students’ social and emotional learning. Importantly, EFT aligns with the Australian Curriculum, Personal and Social Capabilities Learning Continuum that articulates developmental steps in self-awareness, self-management, social awareness, and social management. The following summaries outline the key findings of the research:

- Tapping is an effective technique to introduce to all students. This evaluation was unanimously endorsed by teachers and students. Beyond the research period, some schools have extended tapping, and other schools that did not participate in the research, have introduced tapping as a result of learning about the current study.
• The majority (72%) of students perceived tapping was beneficial. On different occasions, students perceived tapping was helpful for affective, cognitive, and physical states. The three themes and sub-themes derived from the student qualitative data were: *tapping as a mechanism for change*, with sub-themes, *affective change, cognitive change: confidence and academic focus*, and *physical change: transferability of skills*, with sub-themes, *in school and outside school*; and *tapping is not always effective*, with sub-theme, *contradictions*.

• Students and teachers experienced no harmful effects from tapping.

• The efficacy of EFT is supported by teachers’ perceptions of the benefits of applying tapping for students and themselves. The three main themes derived from the teacher qualitative data were: *tapping as a mechanism for change, transferability of skills, and tapping is not always effective*. Sub-themes *students* and *teachers* for the first two main themes were related to teacher perceptions about tapping for students and themselves, respectively. The sub-theme, *contradictions*, for the third main theme, describes inconsistencies that were presented in reported tapping effects.

• The mixed methods study provides robust support for EFT’s efficacy. Student anxiety, as measured by the RCMAS-2, dissipated over the two stages of the tapping, with the exception of one class, in which the second administration of the assessment measure was different to all other classes.
• Ongoing practice of EFT suggests efficacy of the intervention for reducing anxiety and improving wellbeing in primary school students. The reduced levels of anxiety that were experienced by most students after the two stages of tapping were not maintained at the follow-up assessment, after regular class tapping sessions ceased.

• As an ongoing technique, the quieter and more individual style of tapping is preferred by students and teachers. The majority of students and teachers expressed that Stage 2 tapping—where students were encouraged to quietly use their own words to describe how they felt, while applying tapping—was preferable to Stage 1—where students spoke louder, in unison, and were provided with a limited selection of words to describe how they felt.

• Tapping was more positively perceived by students who engaged in appropriate explanations about the reasons for the intervention. Students who came in to classes after the project’s introductory lesson were less inclined to engage fully in the process.

• Students who specified they felt anxious before tapping were especially likely to feel better after tapping.

• Students who reported higher levels of wellbeing felt most improved after tapping. Tapping was not as effective for students who reported low levels of wellbeing.
Students were more likely to develop intrinsic motivation for tapping, and tap for their own purposes beyond the scheduled class tapping sessions, when the psychological needs of competence, autonomy, and relatedness were met.

This latter finding—the importance of competence, autonomy, and relatedness for student engagement in tapping—provides valuable insight for schools and educational programs. Intrinsic motivation is a key factor in self-directed behaviour, and student wellbeing and learning may be assisted or undermined by teacher practices that respectively support or hinder the development of intrinsic motivation (Ryan & Deci, 2000b). Children with higher levels of academic intrinsic motivation have been found to experience less anxiety, higher perception of competence, as well as higher levels of achievement and academic success (Gottfried, 1990). Facilitating the development of intrinsic motivation, therefore, is likely to assist students in all aspects of their lives, such as wellbeing, academic achievement, creative endeavours, and other pursuits.

10.3 Future Research

Several limitations have been identified in the “Discussion” chapter of this thesis, which provide a basis for consideration in future research. Given that few studies have investigated EFT with primary school students, or as a universal technique for students, there is wide scope for future research in these areas. Arising from the limitations in this study, some considerations for future research may include applying a methodology that uses a random allocation of students for EFT intervention; administering more quantitative measures of wellbeing and anxiety; assessment of competence levels of both students and teachers; moderating the impact of peer pressure with age group selection, providing greater consistency in data collection; and streamlining data collection methods. Although these
considerations may direct or enhance future studies, the pragmatic challenges that exist in primary schools, such as constant change, hectic schedules, and teachers feeling overburdened, will warrant significant attention in planning future research.

The study was set in selected schools in the Top End of the NT, and therefore, may not be considered to be representative of the broader range of primary school students in other locations. Nevertheless, the observation that students felt better after tapping, with reduced anxiety levels, as shown in this study, is consistent with previous research that has shown EFT reduces student anxiety in other populations (Benor et al., 2009; Gaesser & Karan, 2017; Sezgin & Özcan, 2009). Not all students experienced improvements from tapping, which is an unsurprising outcome, given that interventions to diminish anxiety and improve wellbeing in individuals are seldom universally beneficial. The perceptions of students about tapping conform to the variabilities of individuality and context, and different results are likely to be experienced on different occasions of tapping. This variability is represented across all interventions and should not diminish the perceived efficacy of tapping. While the current study evaluated EFT when used as a class technique and did not address students’ specific issues, future research may investigate the effect of EFT on student wellbeing when EFT is first used to address students’ specific underlying issues.

10.4 Recommendations

EFT is an effective wellbeing technique that supports the Australian Curriculum, Personal and Social Learning Capabilities and the Northern Territory Department of Education Social and Emotional Learning framework. The following points are two major recommendations from the current study, with explanations also provided:
1. Students in all primary school classes should learn tapping, as unanimously recommended by students and teachers in this study. EFT, like any intervention, may not appeal to, or be effective with, all students. Therefore, a range of techniques presented to students for managing their emotional states will benefit schools.

2. Teachers should support student competence levels and provide autonomy support for students tapping, which will assist the development of students’ intrinsic motivation for tapping.

Relatedness—the way in which students connect with their teachers—mediates the elements of competence and autonomy, and further assists the development of intrinsic motivation. Higher levels of students’ intrinsic motivation for tapping will increase the level of self-directed behaviour of students proactively regulating their wellbeing states through the use of tapping.

Research outcomes have included school principals’ requests for EFT training for teachers of other classes to extend tapping throughout their schools. In addition, staff from other schools that were not in the research project have initiated discussion with me and taken steps to implement tapping in classes as a result of learning about the current study. The following *Teachers Tapping Guide* is a modified version of the step-by-step procedure that was devised as part of this project, and has been offered to assist class teachers in administering tapping in classes. This procedure may be modified for different year levels, with appropriate number line displays and worksheet presentations.
Teachers Tapping Guide

1. “Write today’s date at top of page.”

2. Number line. “Check in with your feelings. Close your eyes. How are you feeling right now? Choose your number between 1 and 10.”

3. “Open your eyes and write your number in the Before Tapping column. Write whatever word describes how you are feeling, next to your number.”

4. Starting with the Side of Hand (Karate Chop) point, perform the tapping sequence with accompanying words.

5. Deep breath. When finished the tapping sequence: “Now take a deep breath.”

6. Number line. “Check in with your feelings. Close your eyes. How are you feeling right now? Choose your number between 1 and 10.”

7. “Open your eyes and write your number in the After Tapping column. Write whatever word describes how you are feeling, next to your number.”

   If doing a second tapping sequence:

8. Repeat the tapping sequence from the start, from the Side of Hand (Karate Chop) point. This time add the word still with your set up words.

9. Number line. “Check in with your feelings. Close your eyes. How are you feeling right now? Choose your number between 1 and 10, even if it’s the same as before, and write it next to your last number. Write whatever word describes how you are feeling, next to your number.”

   If you are including reflection time:

10. “Write down any comments you wish about tapping or how you are feeling.”
10.5 Concluding Comments

Child psychologist Haim Ginott stated: “Only if a child feels right can he think right” (Ginott, 1972, p. 81). The purpose of this study was to help students feel right, or at least, feel better. According to Ginott, applying techniques to assist students to feel better is a prerequisite for student academic performance. Practices that can develop students’ intrinsic motivation to self-manage their emotional and wellbeing states, together with simple techniques that can be applied, is a formula for empowering students in their ongoing wellbeing management.

This study was undertaken in the Northern Territory of Australia and included schools from the two main systems of primary school education—the government and Catholic sectors. The focus of the study was student wellbeing, with the specific objective of investigating EFT for reducing anxiety and improving wellbeing.

This thesis opened the gift of Dadirri—the experience of serenity and wholebeing—offered to all Australians by Indigenous leader and school principal Miriam-Rose Ungunmerr-Baumann. In embracing this invitation, I have set out, in this study, to seek ways for nurturing and growing the experience of wholebeing, or Dadirri, among all young people. When individuals are equipped with techniques for emotional self-management, wholebeing becomes possible and permeates our communities.

This study has found EFT, as an emerging energy psychology intervention, to be an effective wellbeing technique for students in primary schools, and has implications for all primary school students, including students with special needs. Importantly, EFT supports national educational social and emotional wellbeing policies, and may therefore be a valuable inclusion in school programs.
References


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Appendix A

Mind Map for Search Terms

Keywords

child wellbeing, child anxiety, child anxiety prevalence, child anxiety trajectory, child anxiety impact, anxiety preventative techniques, anxiety treatment, anxiety intervention, holistic health models, wellbeing and performance, quality of life, energy psychology, Emotional Freedom Techniques, EFT, tapping, acupuncture research, traditional Chinese medicine, TCM, social emotional learning, Australian school SEL policy, cognitive behaviour therapy, positive psychology, social emotional learning, NT school SEL policy, school SEL programs, school social and emotional programs
Appendix B

(a) Tapping Protocol and (b) Number Line

(a) Tapping Protocol

1. Set Up

Words to say while tapping on the Side of Hand (Karate Chop) point

1. Set Up
“Even though I feel anxious, or not great, I accept myself completely.” X3
OR
“Even though I feel great I accept myself completely.” X3

2. Tapping Points

Words to say while tapping on the Tapping Points

2. Tapping Points
“Feeling anxious or not great”
OR
“Feeling great”

(b) Number Line

How am I feeling right now? 😞جهنم؟ 😊

0 1 2 3 4 5 6 7 8 9 10
Appendix C

Research Brief

Research Title: Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing wellbeing in primary school students

Rationale for the research project
Anxiety is common among primary school children, and anxiety disorders are experienced by young Australians at rising rates of prevalence. Preventative programs and early intervention for anxiety and depression in children are national health commitments. Educational goals set out in the national statement emphasise supporting young Australians to become confident and creative individuals through managing their emotional, mental, spiritual and physical wellbeing. High levels of anxiety and stress are inhibitors to learning, so interventions that reduce these levels are likely to improve student concentration and performance and classroom management. The performance of teachers is also likely to be improved with reduced stress and anxiety experienced by students and themselves.

Description of the Project
This study will investigate whether Emotional Freedom Techniques (EFT), otherwise known as Tapping, is an effective intervention for reducing anxiety and improving subjective wellbeing in primary school students. Previous research conducted in EFT shows positive results for reducing anxiety in students.* Evidence has shown that EFT reduces symptoms of stress and anxiety in individuals, and it may therefore be a useful addition to primary schools’ social and emotional wellbeing programs.

EFT is an intervention that involves gentle tapping on particular points, known as meridian points, on the body, whilst saying a statement of affirmation. It is a very simple technique that takes 2-3 minutes to apply. Teachers of Grade 6 will be trained in EFT and in leading students in tapping each day for a period of 4 weeks. Children will be taught how to tap on themselves and the affirmations to say.

The project is designed for being implemented as a class technique in four Grade 6 classes in the Darwin area. The research will investigate the effectiveness of EFT when used as a whole class technique and as an intervention for anxiety. At the end of the 4-week period, the perceptions of both students and teachers will be gained from their experiences of using EFT. A repeat of the 4-week tapping regime will be negotiated to take place in the following term. The study will use appropriate materials, including interviews and measurement scales for evaluating children and teachers' experiences of using EFT. Given that the technique can be applied in just a few minutes, it is anticipated that the project will cause little disruption to classes.

Benefits of the project
Potential benefits include:

- students and teachers will feel less anxious and stressed, resulting in improvements in their sense of wellbeing
- the identification of an intervention that can be extended to other school groups and educational settings
- less disruption to classes with students attending private sessions with the school counsellor
• reduced stigma and bullying that can arise when individual students are singled out for sessions with the counsellor or are identified by other students as being upset
• economic benefits with the use of an intervention that can be applied to the whole class

Who is conducting the research?
The research is endorsed by Charles Darwin University. It has been approved by peer review in the PhD Confirmation of Candidature procedure and is currently awaiting final approval by the Human Research Ethics Committee at its first meeting in 2018.

The researcher is Margaret Lambert, a registered psychologist and a former teacher and librarian. Margaret has trained others in EFT for over 15 years, and is experienced in working with primary children both as a psychologist and a teacher. Margaret has been a consultant psychologist in a Darwin primary school, and she has published two books on health and wellbeing, and mindful meditations, and has contributed to other publications on health and wellbeing.

Prof Marilynne Kirshbaum is the Principal Supervisor of the project. Other supervisors are Dr Sue Smith and Associate Professor Simon Moss.


Margaret Lambert
CDU PHD Studies, School of Health

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E: margaret.lambert@cdu.edu.au
W: cdu.edu.au
Appendix D

The Tapping Project Teacher Guide

1. Write today’s date at top of page

2. Number line – Check in with yourself – How are you feeling right now? Get your number

3. Write your number in the Before Tapping (Morning/After Recess/After Lunch) box. Circle Anxiety or Not Great or just the word Great if you are a 10

4. Tapping sequence with words --- Take a deep breath

5. Number line – Check in with yourself --- How are you feeling right now? Get your number

6. Write your number in the After Tapping box (for Morning/ After Recess/After Lunch)

7. If you are doing a second tapping sequence – Repeat the tapping sequence from the start – from Side of Hand (Karate Chop) point. This time add the word ‘still’ with your words.

8. Check in with yourself --- how are you feeling right now? – Get your new number (even if it’s the same as before) and write it outside the box next to your other number

9. Write down any comments you wish about the tapping

10. Collect books
Appendix E

Anxiety and Not Great Word Groups

Anxious
- Worried
- Stressed
- Nervous
- Scared
- Frightened

Not Great
- Sad
- Tired
- Lonely
- Sick
- Upset
- Unhappy
- Bad
- Angry
- Disappointed
- Guilt
- Mad
- Miserable
Appendix F

Charles Darwin University Human Research Ethics Committee
Letter of Approval

16 April 2018

Prof Marilynne Kirshbaum and Mrs. Margaret Therese Lambert

Via email marilynne.kirshbaum@cdu.edu.au

Dear Marilynne and Margaret,

RE: H18008 – Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing wellbeing in primary school students

Human Research Ethics Committee – Proposal Approval

Thank you for submitting the above proposal for ethical review. The proposal has been considered under the auspices of the Charles Darwin University Human Research Ethics Committee (CDU-HREC) and is approved from the date of this letter to the expiry date listed below.

EXPIRY DATE: 31/07/2020

An annual progress report must be provided to the Ethics Office before each anniversary of the commencement date. This approval is contingent on submission of a satisfactory annual progress report.

APPROVAL IS SUBJECT TO the following:

1. The safe and ethical conduct of this project is entirely the responsibility of the investigators and their institution(s).

2. The Principal Investigator must report immediately any event or circumstance that might affect the ethical acceptability of the project, including:
   - Adverse effects of the project on participants and the steps taken to deal with these;
   - All other unforeseen events that influence the protocol or participants; and
   - New information that may invalidate the ethical integrity of the study.

3. The Principal Investigator must obtain approval for any variation to the protocol (including the addition of new investigators) prior to implementation the proposed variations. Requests for approval of variations must be submitted in accordance with the procedures of the Ethics Office.

4. The Principal Investigator must advise the University immediately of unapproved protocol deviations or protocol violations.
5. The Principal Investigator may request an extension of the project past the expiry date listed above. An extension may be requested at any time, however, the preferred time and method of requesting an extension of ethical approval is in the annual progress report.

6. The Principal Investigator must notify the Ethics Office of his or her inability to continue as Principal Investigator, including the name of and contact information for their replacement. The research may not proceed without an approved Principal Investigator.

7. Confidentiality of personal information of research participants should be maintained at all times as required by law.

8. You must forward a copy of this letter to all investigators and to any associated organisations.

This letter constitutes ethical approval from the CDU Human Research Ethics Committee only.

Should you wish to discuss the above research project further, please contact the Ethics Team via email: ethics@cdu.edu.au or telephone: (08) 8946 6063.

Best wishes for the success of your project.

Yours sincerely

Professor Lawrence Cram
Chair, Human Research Ethics Committee
Charles Darwin University, NHMRC Registration No. EC00154

This HREC is constituted and operates in accordance with the National Health and Medical Research Council’s (NHMRC) National Statement on Ethical Conduct in Human Research (2007).
Appendix G

Northern Territory Department of Education Research and Evaluation Team:
Letter of approval to conduct research in schools

Ms Margaret Lambert
445 Trower Road
BRINKIN NT 0810

6 APRIL 2018

Dear Ms Lambert

RE: Application to Conduct Research: "Using Emotional Freedom Techniques for reducing anxiety and increasing wellbeing in primary school students"

I am pleased to advise that your application to conduct the above research has been approved by the Research Advisory Committee with the following conditions:

- A copy of your ethics approval letter is provided to the Research and Evaluation team prior to commencing research;
- Insurance documentation to be provided to the Research and Evaluation team; and
- The following additional information is incorporated into information sheets / consent forms:
  - No individual will be identified in any report or publication
  - Data will be stored securely and destroyed after 5 years.

Please note that the decision to participate in this project will be at the discretion of the relevant school principal, parents and relevant individuals. Please provide a copy of this letter to the school principal.

The department is interested in the findings from your research and as such I look forward to receiving a copy of the final report.

If you require any further assistance you may contact the Research and Evaluation Team on telephone 8999 5829.

Yours sincerely

Gillian Sharkey
A/Chair, Research Advisory Committee

www.education.nt.gov.au
Appendix H

Catholic Education: Approval to conduct research in schools

Margaret,

I can confirm that all the information outlined in your email below is correct and that we meet and you briefed me on the ‘Tapping Project. An outline of this project was then presented to principals and there was interest from a number of schools.

We will be very keen to see the feedback from the project.

Regards

Greg O'Mullane

DIRECTOR OF CATHOLIC EDUCATION
Diocese Of Darwin

Ph: (08) 89841400

From: Margaret Lambert [mailto:marg@margaretlambert.com]  Sent: Tuesday, 13 March 2018 2:38 PM  To: Greg Omullane <greg.omullane@nt.catholic.edu.au>  Cc: Marian Bhasin <marian.bhasin@nt.catholic.edu.au>  Subject: Research Project in Schools

Dear Greg

Re: The Tapping Project – Research Title: Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing social emotional wellbeing in Australian school students

I am writing to thank you for meeting with me recently in order to discuss the above project in schools. In order to progress the CDU Ethics application for the project, I am required to submit evidence of your understanding of the project and in principle support.

This email is to confirm the points made in our conversations and earlier correspondence about the project, and your recommendation for moving forward with regards to the recruitment of schools for engagement in the project. Specifically:

• You have received the Research Brief and 2 minute video on tapping, along with the full
research proposal.

- The project will involve Year 6 students and teachers from 2 Catholic Education and 2 NTG Darwin/Palmerston schools who consent to being involved in the project. Consent for student participation will also involve consent of their parents/guardians.
- School principals have autonomy over the undertaking of the project in their schools, and it is necessary to engage the support of principals for the project to progress.
- You advised you would speak to the Inclusion Support Team in the first instance to gauge their level of support for the project being presented to school principals. Follow up emails and phone calls with Bernadette Morriss confirmed that the Inclusion Support Team supported the project and that it was to be presented to a gathering of school principals on 7 March by a psychologist from the Team who is trained in EFT.
- Your follow up phone call advised that the project was presented to school principals and that I would be advised about their interest to participate in the project.

I am very happy to chat further about the project or to provide additional information that you or any of your staff may require at this stage.

If you are in agreement with the above, would you please reply to this email with a statement of confirmation and in principle support for the project.

Thanks Greg. I appreciate your interest in the project.

Best regards
Margaret

Margaret Lambert  CDU PHD Studies, School of Health  T: +61 414459585  E: margaret.lambert@cdu.edu.au  W: cdu.edu.au
Appendix I

Plain Language Statements for Students

PROJECT TITLE: The Tapping Project, or Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing wellbeing in primary school students

This is your handout to keep. It describes the project for your class. Please read it before signing the form if you wish to take part in the project.

WHAT IS THIS PROJECT ABOUT?
• This project is to find out if Tapping can help Grade 5-6 students to feel less stressed and anxious. Tapping is another name for Emotional Freedom Techniques (or EFT)

• The Tapping Project is being conducted in 4 Darwin and Palmerston primary schools. Schools have been chosen because of the principals’ and teachers’ interest in the project

WHAT IS TAPPING?
• Tapping is a method that people can use to help feel less stressed and anxious

• When people use Tapping, they tap gently on special points on their upper body hand and say some kind words

WHAT WILL HAPPEN IN THE PROJECT?
• Your teacher will lead the class in tapping sessions three times a day – first in the morning, and straight after recess and lunch.
Before and after each Tapping session, you will write down your stress or anxiety number (0-10) in a project book.

All your information is confidential – that means you do not have to tell anyone what you have written down. Only the researcher will look at your project book at the end of the project.

When the Tapping project has finished, you may share your stories about it. This will be done in a private interview with the researcher.

HOW LONG WILL THE PROJECT TAKE?

- The tapping sessions will be done for 4 weeks. This is Part 1 of the project

- In the next school term, the tapping sessions will be repeated. This is Part 2 of the project

- The interviews will occur at the end of Part 1 and again at the end of Part 2 of the project

WHAT IF I AGREE TO SHARE MY STORIES ABOUT TAPPING?

- 6 students who agree to share their stories will be picked randomly for interview

- The stories, without real names, will be used in a report about the Tapping Project.

- The interviews will be held at school and will be recorded

- If you are picked to be interviewed, you can:
  - choose to answer questions or not
  - stop the interview at any time
  - ask to see your information that has been recorded, and change it if you wish
  - choose a different name to be used for your story

WHO IS DOING THE RESEARCH?

- The project is based at Charles Darwin University. The researcher is Margaret Lambert, Psychologist and PhD student

- Other people helping with the project are Professor Marilynne Kirshbaum, Dr Sue Smith and Associate Professor Simon Moss
• If you wish to discuss the project at any time, you can contact:
  o Margaret on 0414459585 or by email margaret.lambert@cdu.edu.au
  o Marilynne at email Marilynne.Kirshbaum@cdu.edu.au

OTHER INFORMATION
• Even if you agree to participate in the project, you can stop at any time.

• If you do not want to be included in the project, you can still join the class learning tapping if you wish, or you can do quiet work at your desk while the class is doing tapping.

• Your real name will never be shared with anyone else. No one will be identified in any report or publication. All data (such as project books and interview recordings) will be stored securely and destroyed after 5 years.

• If any problems arise for you during the Tapping Project, you can talk to Margaret or your teacher.

• At the end of the project, your school will receive a report about the Tapping Project.

• If you have any questions or problems that you do not want to direct to the Margaret or Marilynne, you can contact the Ethics team of the Charles Darwin University Human Research Ethics Committee on (08) 89466063, on the toll free number, 1800 466 215 or by email, ethics@cdu.edu.au.
CONSENT FORM FOR STUDENTS

PROJECT TITLE: The Tapping Project, or Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing wellbeing in primary school students

- I would like to be part of the Tapping Project.
- I have read the Information for Students and I understand that I can ask any questions about the project.
- I have Margaret's contact details and I can contact Margaret or my teacher if I have any problems doing the Tapping Project.
- I can stop doing the Tapping Project if I wish.
- The information I provide is confidential and my name or any details about me will not be shared with anyone.
- I can keep the Information for Students handout so I can read it again in the future.

Name (please print) ..........................................................
School ..........................................................................
Signature .....................................................................
Date......................

Researcher's signature.............................................
Date......................
APPENDIX J

Plain Language Statement for Parents

INFORMATION SHEET FOR PARENTS
REGARDING RESEARCH PROJECT

PROJECT TITLE: The Tapping Project

Full project title: Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing wellbeing in primary school students

This document is yours to keep. Please read before signing the attached consent form.

ABOUT THE PROJECT
This research project is designed to evaluate a technique known as Tapping, or Emotional Freedom Techniques (EFT), for reducing stress and anxiety in children. The project is a PhD research by Margaret Lambert, Psychologist. Principal Supervisor for the study is Professor Marilynne Kirshbaum, and other supervisors involved in the project are Dr Sue Smith and Associate Professor Simon Moss.

EFT is a technique that has been found to help people with anxiety and stress. Children can learn and apply it themselves whenever they wish. It involves children gently tapping on their own upper body and hand while saying a statement of affirmation. The technique takes 2-3 minutes to perform. It is completely non-intrusive and does not pose any known psychological or physical risks.

St Francis of Assisi Catholic Primary School is one of four schools involved in the project in the Darwin, Palmerston and rural area. Schools were selected based on the direction by educational executives and the interest shown by school principals and Year 5-6 teachers to be included in the project.

Students in the project will be taught EFT in class. Over a 4-week period (Stage 1), the class teacher will lead the students in tapping each morning, after recess and after lunch. There will be a further 4-week period of tapping in the following term (Stage 2).

Prior to the first session, students will complete a short Yes/No questionnaire which will be administered by the researcher. Student responses are confidential and will not be shared with
the class or the teacher. Students will also rate their own anxiety and stress levels before and after each short session of tapping, which will be recorded in their project books under the supervision and guidance of the teacher. At the end of the project, the researcher will collect the project books.

At the end of the 4-week period, some students will be asked if they are willing to share their experience of using the Tapping techniques. This will be done in private interviews with the researcher and will take around 20 minutes. The interviews will be conducted at school and will be recorded on a digital recording device. Students will be asked if they wish to volunteer to be interviewed. From the volunteer group, six students will be randomly selected for a single interview in Stage 1 and again in Stage 2. If your child is selected for interview, you will be invited to be present for the interview. If you are not able to be present, a staff member will be present in the room where the interview will take place.

Participation in the Tapping Project is voluntary, and your child is free to withdraw from the project at any time. There is no payment for participation; however students will be provided with healthy treats at the end of the project in appreciation for their participation.

All data collected will be stored securely at Charles Darwin University in a location that is accessible only to the research team. Feedback on the project will be provided to schools through a Summary Report. Parents are welcome to access the report and will be contacted when it is available. No identifiable information will be released about individual participants in the report or in any publication pertaining to the research project and original data will be stored securely and destroyed after 5 years.

If you would like further information on the study, please feel free to contact Margaret Lambert directly on XXXX XXX XXX or by email, margaret.lambert@cdu.edu.au, or Marilynne Kirshbaum at email Marilynne.Kirshbaum@cdu.edu.au. You are also able to contact Margaret at any time throughout the project should any concerns arise for you or your child.

If you have any questions or concerns that you do not want to direct to the researcher, you are invited to contact the Ethics team of the Charles Darwin University Human Research Ethics Committee on (08) 89466063, on the toll free number, 1800 466 215 or by email, ethics@cdu.edu.au.
PARENT CONSENT FORM
FOR PARTICIPATION IN RESEARCH

PROJECT TITLE: The Tapping Project

I ..................................................................................................................................

hereby give consent to my child .................................................................................. who is a student at .................................................School, to participate in The Tapping Project, as described in the attached Information Sheet for Parents.

• I have read the information provided in the Information Sheet for Parents and understand the procedures involved in the research
• I agree to the interviewing and audio recording of my child
• I understand that my child or I are free to withdraw consent at any time
• I understand that my child’s name and personal details will not be disclosed in the presentation of the study and there will be no identifiable material included in the results or in any publication or conference presentation related to the study
• I understand that I may contact the researcher to discuss any concerns I may have about the project

(Optional) Does your child have a diagnosed mental health condition, and if you wish, can you please provide details?

..................................................................................................................................

..................................................................................................................................

I have the Information Sheet for Parents that I may retain for future reference.

Parent/Guardian name (please print) ..............................................................................

Parent/Guardian signature..................................................................................Date………

Researcher’s signature..................................................Date..................
Appendix K

Plain Language Statement for Teachers

23 April, 2018

RESEARCH PROJECT
INFORMATION SHEET FOR TEACHERS

PROJECT TITLE: The Tapping Project
Full Title: Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing wellbeing in primary school students

This document is yours to keep. Please read before signing the attached consent form.

ABOUT THE PROJECT
This research is designed to evaluate a technique known as Tapping, or Emotional Freedom Techniques (EFT) for reducing stress and anxiety in children. The research is a PhD study by Margaret Lambert, Psychologist and the Principal Supervisor is Professor Marilynne Kirshbaum. Other supervisors involved in the project are Dr Sue Smith and Associate Professor Simon Moss.

EFT is a technique that has been found to help people with anxiety and stress. It involves people gently tapping on their own upper body and hands while saying a statement of affirmation. The technique takes around 2-3 minutes to perform. It is completely non-intrusive and does not pose any known psychological or physical risks. People can learn and apply EFT themselves whenever they wish.

Sacred Heart Catholic School is one of four schools involved in the project in the Darwin and Palmerston area. Schools were selected based on the direction by the educational executives, and the interest shown by school principals and Year 6 teachers to be included in the project.

WHAT THE PROJECT INVOLVES
Students in your class who agree to be involved in the project will be taught EFT by you and the researcher in a class session. Prior to teaching EFT to students, you will receive two training sessions on EFT and the administration aspects of the project. Each training session will be around one hour duration. Following the training sessions, you will lead the students in tapping sessions each morning, and after recess and lunch over a 4-week period (Stage 1). With the exception of the first lesson on EFT, each of the student tapping sessions will take around 3 minutes.
At the commencement of the first tapping session, students will complete a short Yes/No questionnaire which will be administered by the researcher. Students will also rate their own anxiety and stress levels before and after each short session of tapping, which will be recorded in their project books under your supervision and guidance.

At the end of Stage 1, you will be interviewed about your experiences of using EFT with the class. The interview will take around 45 minutes and will be recorded. No individual will be identified in any report or publication and data collected will be stored securely and destroyed after 5 years.

In addition, some students will be asked if they are happy to answer a few questions about their experience of Tapping. Six students from each of the classes participating in the project will be selected to be interviewed about their experience with tapping. If less than 6 students agree, all of the students who volunteer to be interviewed will be included for interview. If more than 6 students agree to be interviewed, the 6 students for interview will be randomly selected from the volunteer group.

A second 4-week period of tapping sessions will be repeated in the following term (Stage 2), with interviews following.

Participation in the project is voluntary and you are free to withdraw from the project at any time. There is no payment for participation; however, a Certificate of Participation will be issued and training and interviews can be included in professional development activity.

A summary of the results of the study will be made available through the school.

If you would like further information on the study, please feel free to contact Margaret Lambert directly on XXXX XXX XXX or by email, margaret.lambert@cdu.edu.au, or Marilyne Kirshbaum at email Marilyne.Kirshbaum@cdu.edu.au. You are also able to contact Margaret at any time throughout the project should any problems or concerns arise with you or your students.

If you have any questions or concerns that you do not want to direct to the researcher, you are invited to contact the Ethics team of the Charles Darwin University Human Research Ethics Committee on (08) 89466063, on the toll free number, 1800 466 215 or by email, ethics@cdu.edu.au.
CONSENT FORM FOR TEACHERS

PROJECT TITLE: The Tapping Project
   Full Title: Using Emotional Freedom Techniques (EFT) for reducing anxiety and increasing wellbeing in primary school students

I …………………………………………………………………………... consent to being involved in the above research project as described in the Information Sheet for Teachers.

- I have read the information provided in the Information Sheet for Teachers and understand the procedures involved in the research
- I agree to being interviewed by the researcher and the recording of interviews
- I understand that I am free to withdraw consent at any time
- I understand that my name or personal details will not be disclosed in the presentation of the study and there will be no identifiable material included in the results
- I understand that I may contact the researcher to discuss any concerns I may have or any problems that may arise during the course of the project

I have the Information Sheet for Teachers that I may retain for future reference.

Teacher’s name (please print) ……………………………………………
Teacher’s signature……………………………………………………..Date………………

School……………………………………………………………………………………

Researcher’s signature………………………………………………………….Date………………...
Appendix L

Finger “Secret” Tapping Points (right hand)
### Appendix M

Sample of Student Workbook

**Today’s Date:** 23.5.18

### What’s my number?

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<tr>
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<tr>
<td><strong>After Lunch</strong></td>
<td>5 Anxious Not great</td>
<td>7 Anxious Not great</td>
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### Comments about today

Today in the morning I wasn’t feeling good, but the tapping helped me be calm. After lunch I came down to a 5 because I’m worrying about my marks for my assignment, but I’m feeling calmer now.
Appendix N

Student Interview Questions: Stage 1

1. Now that you have done it, what do you think about tapping?

2. Did you notice whether you felt any different after tapping? If so, can you try to explain what was different?

3. How did you feel doing your class work after tapping? Did you notice whether it was easier or harder or no different to concentrate on your school work?

4. Did you use tapping outside of the class tapping sessions? (If so) what were the situations you used it for, and how did you feel after you tapped?

5. What are some thoughts you experienced when the concept of tapping was introduced? What are some thoughts you experienced while tapping? Did these thoughts change over time?

6. What do you like about the experience of tapping? And what do you not like?

7. Would you like to change anything about the program?

8. Why did you continue to tap—or not continue to tap—outside the classroom?
 Appendix O

Staff Interview Questions: Stage 1

1. What was your experience of using EFT with the class? Did you notice any different in wellbeing/behaviour/concentration/etc. of the students?

2. Did you notice any differences in yourself (emotionally, cognitively, motivationally) after using EFT? Can you describe the differences?

3. Do you think EFT would be effective as an ongoing technique for students and teachers? If so, what might be the benefits - for individuals? For classes?

4. What are some of your concerns about tapping in the classroom?

5. Would you like to change anything about the program?”
Appendix P

Student Interview Questions: Stage 2 new interviewees

1. Now that you have completed stage 1 and stage 2, what do you think about tapping and the tapping project?

2. Did you notice whether you felt any different after tapping? If so, can you try to explain what was different?

3. Can you tell me whether you preferred the way you did tapping in the class in Stage 1 or Stage 2? Do you know why?

4. What did you think of tapping to begin with, back in stage 1? Did these thoughts change as you continued with the Tapping Project and during stage 2?

5. How did you feel doing your class work after tapping? Did you notice whether it was easier or harder or no different to concentrate on your school work?

6. Did you tell anyone about tapping? If yes, who did you tell and what did they think?

7. Can you tell me whether you noticed any thoughts came to you while you were doing the tapping?

8. Now that you’ve finished the project, do you think it’s a good idea or not to introduce other classes and schools to tapping?

   If yes, what do think are the benefits. If no, why not?

9. Would you change anything about the program if it were to be introduced to other classes and schools?

10. Did you use tapping outside of the class tapping sessions? (If so) what were the situations you used it for, and how did you feel after you tapped? What type of tapping did you use? - the normal class technique or the secret tapping?

11. What do you like about the experience of tapping? And what do you not like? Will you continue to use it for yourself now that the project has finished?
Appendix Q

Student Interview Questions: Stage 2 repeat interviewees

1. Now that you have completed stage 1 and stage 2, what do you think about tapping and the tapping project?

2. Did you notice whether you felt any different doing tapping in stage 2 – the program you’ve just done, compared with stage 1 – the tapping program last term? If so, can you try to explain what was different?

3. Can you tell me whether you preferred the way you did tapping in the class in Stage 1 or Stage 2? Do you know why?

4. Did your thoughts about tapping change from last term now that you’ve done Stage 2? If yes, can you explain what is different for you thinking about tapping?

5. How did you feel doing your class work after tapping this time in Stage 2? Did you notice whether it was easier or harder or no different to concentrate on your school work?

6. Did you tell anyone this term about tapping? If yes, who did you tell and what did they think?

7. Can you tell me whether you noticed any thoughts came to you while you were doing the tapping?

8. Now that you’ve finished the project, do you think it’s a good idea or not to introduce other classes and schools to tapping?

   If yes, what do think are the benefits. If no, why not?

9. Would you change anything about the program if it were to be introduced to other classes and schools?

10. Did you use tapping outside of the class tapping sessions? (If so) what were the situations you used it for, and how did you feel after you tapped? What type of tapping did you use - the normal class technique or the secret tapping?

11. What do you like about the experience of tapping? And what do you not like? Will you continue to use it for yourself now that the project has finished?
Appendix R

Staff Interview Questions: Stage 2

1. What was your experience of Stage 2 of the Tapping Project with the class?

2. What differences, if any, did you notice with the wellbeing or behaviour or concentration etc. of the students with Stage 2 of the tapping project?

3. How would you evaluate the effects of tapping during Stage 1 and tapping during Stage 2?

4. Did you use tapping yourself? And if so, what differences (emotional, cognitive, motivational, physical) did you notice after tapping?

5. Do you think EFT would be effective as an ongoing technique for students/teachers/schools? If so, what might be the benefits - for individuals? classes? schools?

6. How do you think tapping could be best introduced in classes and/or schools?

7. What are some of your concerns, if any, about tapping in the classroom?

8. What changes would you like to see anything about the program?
Appendix S

Principals’ Interview Questions

1. From your Principal’s perspective, what is your perception of the Tapping Project?

2. Have you had any conversations about tapping with either the teachers or students involved in the project, or with anyone else at all?

   If so, what are the kinds of comments that have been expressed?

3. What may be some of your concerns about students tapping in class?

4. Many students have expressed that tapping has helped them to calm down or to feel more relaxed or less angry, and many students have also used it outside school for things like upset at home, or for anxiety prior to a sporting activity or other performance.

   Both teachers and the majoring of students interviewed have expressed that it would be worthwhile to introduce tapping to all other classes and/or schools. Would you be supportive of this?

   If so, how is this best achieved?
   a) In your school?
   b) In the Catholic/Government schools’ system?

5. There were a variety of ways that tapping occurred in the classroom, such as:
   a. whole class universal chant-style expression as students tapped,
   b. whole class quieter method as students expressed their own word/phrase to themselves as they tapped
   c. more individual style where students did their tapping independently when they entered the room
   d. recording pre and post tapping scores, and/or writing down feelings along with doing the tapping protocol

   Most students have reported that they preferred the independent method (c), and all teachers have agreed that this is a preferable method in terms of classroom management at the Year 5-6 level, as well as for students personalizing the technique for their own needs. Some students also reported value in writing and reflection, though most students preferred just doing the tapping without needing to write anything.

   What are your thoughts on this, when considering the different grades in the school?

   Do you think the more independent style is better suited to particular grades, and do you think the same or a different method of application may be better suited to other grades?

6. What would you like to see as the next stage for tapping in your school?
7. How are the year 6/5-6 class groupings in this school divided? What are the differences between them?

8. Can you tell me a little bit about the demographic composition of the Year 6/5-6 classes?
PART A:

SCHOOL D
SUMMARY OF THE ANXIETY QUESTIONNAIRE ADMINISTERED

The Revised Children’s Manifest Anxiety Scale, Second Edition (RCMAS-2) was administered to students prior to the Tapping Project and again after the completion of the project. Students had completed two stages of tapping – Stage 1 in Term 2 and Stage 2 in Term 3. Each stage of tapping consisted of students tapping in class each day for 4 weeks.

An increase as reported below means that students responded with more anxiety after the tapping project; and a decrease means that students responded with less anxiety according to the standardized test.

Only students (total of 12) who completed both administrations of the RCMAS-2 (pre and post tapping) are included. There are 3 other students who completed either the pre or the post questionnaire only. Differences in these students’ anxiety levels as a result of the tapping therefore cannot be assessed.

Results: Of the 12 students who completed pre and post anxiety questionnaires, 7 students decreased in anxiety; 2 students increased and 3 students had no change.
PART B:

SCHOOL D
STAGE 1 & 2 STUDENT COMMENTS

Summary feedback as well as daily feedback provided by students via the student tapping books
individual student interview comments also included

Stage 1: 87% of students reported that tapping is helpful (13 students reported helpful and 2 students reported not helpful).

Stage 2: 71% of students reported that tapping is helpful (10 students reported helpful and 4 students reported not helpful, including one student who reported both helpful and not helpful).

Stage 1—Helpful

Adele: I really liked the tapping project because it helped relieve stress and it was fun. 28/5/18: I felt really annoyed and tired but now I feel better (after tapping – morning).

Interview 25/6/2018:
It does help. It’s not just something that you do. Sometimes I felt upset because there’s things that’s happened with family and friends and it helped me accept it more. It did help because me and my friends, we would have some falling outs and then we did the tapping and it made me feel better and be able to concentrate on it more, on my school work, instead of what happened and who said what. When I’m in fights with my sister I use it and generally just when I’m annoyed or stressed. I used the finger (secret) tapping. I like that you get to tap some of the points where like it doesn’t make you as stressed and that you know which points it is, so that you can do it other than just at school. I know that some people have disabilities and that it would probably, well, might help with the like, dealing with it.

Alex: I enjoyed tapping. It helped me calm down during many things in my everyday life. I think tapping does work for some emotions.
28/5/2018: The tapping was fun but the after tapping made me feel a bit sick in my head because of the eye tapping. I think it works at making me tired.
31/5/2018: I love it. I was in some pain and I did it. It felt great.
4/6/2018: Good in the morning. I went from good to great. After lunch I felt like passing out and after tapping I felt better.

Interview 25/6/2018:
Alex: I think that it works if you’re stressed but there is some levels of stressness that it can’t really, would I say, cure? Like, it depends on the situation. They all started to look really tired (when I did it with younger kids)
I think once you get that information (about the tapping) you kind of develop the ability to calm yourself down through tapping. I think it is a good idea to give it to other classes. (Tapping helped) a little bit (for my temper). When I was alone and I was starting to get a bit angry at just random things, I would try and do it and I did do it a few times. I find techniques to calm down and tapping’s definitely one of them.

The thought of (tapping) is a bit weird. Once I’m finished – I don’t know what the feeling is, it’s like a sense of achievement or a sense of just happiness for no exact reason but obviously there is a reason. I don’t really like this one (under the arm point) because I feel like I’m a monkey. But there’s not much that I don’t like about it

In term 1, we just go to the mat, normally do maths after recess and so, we’d have like kind of no control over ourselves but term 2 when tapping started, after tapping we’d do maths and I feel like everyone was a lot calmer, you know getting their books out discussing with the person next to them what we’ve done recently. I think that tapping – the few people that often cause chaos you could say, were a lot quieter.

When it got to the point of doing it (angles, algebra) it was very hard for me because like I’ve never learnt it in class. And then tapping came and it just feels like I’ve – I can process things a lot easier and quicker.

When I just have a look and the person sitting next to me often before we even do tapping, they’ve already filled out after tapping (score)  

After a few times, like after the first week, it just started becoming like natural.

Kay: The tapping project was pretty cool and it made my days a bit better. Some days I didn’t feel great, I felt great after.

Leonard: 14/6/18: Sometimes it works, sometimes it doesn’t. 18/6/2018: Pain does not help! But it does reduce my stress.

Michael: I liked the tapping because I could express my feelings in private. Although sometimes the tapping didn’t work.

Mandy: Tapping was good and I enjoyed it but it was time consuming and sometimes it worked but when I have a super bad day it sort of worked.

28/5/2018: Morning: I felt way better and happier because I got rid of all my stress.  

(After recess) It didn’t really work this time. (After lunch) I feel way better and not anxious – and I’m happy.

29/5/2018: (Morning) It worked very good and it got rid of things in my brain that made me feel not so good.  

(After recess): It didn’t work.  

(After lunch): It worked 😊 I’m happy.

30/5/18: AL: It worked very good.

4/6/2018: After lunch: I feel great and I’m not as tired.

[Similar comments expressed on various days.]
Nelson: I think it has been great over the four weeks. It’s helped. I think I could use it in the future. It’s helping lots.
30/5/18: It’s helping lots.
31/5/18: I don’t know why but it’s not working.

Oscar: It’s been great. It works sometimes but sometimes it doesn’t. I’m excited for Part 2.

Interview 25/6/2018:

Oscar: It helps on some days but some days it doesn’t really work.
[Oscar didn’t notice if it was easier or harder to focus and concentrate after tapping.]
(I might use tapping) for big things in front of a lot of people to boost my confidence a little bit.
I can’t really explain it but yeah, it would be good for other people (to know about tapping).
I like it because it helps you a lot with fighting anxiety and stuff. I don’t like it ’cause it consumes a lot of time. This week it’s all about assessments but then we got to stop, do tapping and then go on to it. So we could have that time to do our assessments.
[Oscar enjoyed leading tapping in the classroom.]

Penny: 28/5/18: I felt sad in the morning but after tapping I feel better. I felt really annoyed at the start of recess but I feel much better now. After lunch I went up to 10 because well I think it is really concentrating and relaxing.
29/5/18: I had a good morning but anxious and after tapping I felt even more anxious.
(More comments like this – either more anxious or feeling great).

Pixie: What I thought overall of this tapping was relaxing and helpful. Even though I felt nervous when we had tests, this helps me a lot.
28/5/18: At the start of the day I felt stressed but now I feel relieved and fine.

Vijay: Tapping was fun. It was a time when we could calm down and relax. Last time I done it at sports day it helped me relax. It does work for me.

Samantha: I have enjoyed having the time to relax and I don’t really think it changed anything.

Interview 25/6/2018:

Samantha: I like how we have time to do it and we refresh our brain, like when we do it, it refreshes my brain. It made me feel better, like if there was like some reason that I was sad, it made me feel better but it was still – I was still sad about it. I felt more confident in it (doing my school work), ’cause usually after lunch I come in and then I’m all like excited because I was just out playing and then I come in and it relaxes me and it makes me focus on my work more.
I had done something naughty and I was getting in trouble and then (tapping) made me feel better like, when I was just sitting down getting told off, I was just doing the little secret tapping and it made me feel better. I get really scared when (people fight at the shops) so I was doing (tapping) and it made me feel better. I told most of my family and they thought it was pretty cool and that. There’s nothing that I don’t like about it. I don’t think it’s like the best thing in the world and that but I think it’s okay and it’s like good to do and that, ’cause it helps me sometimes. I reckon it’s a good thing.

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Stage 1 – Not Helpful

Brodie:  30/5/18: I feel that it made me feel nauseous. I felt that it didn’t really work with me and I did not like it. It made me feel sick and sometimes sad. 28/5/18: It helped. It hurt. 20/5/18: I have a headache after I did tapping.

Fay: I didn’t like tapping because it made me stressed because I thought about stuff. It didn’t work or help. 12/6/18: I do not like tapping. It doesn’t help in my opinion and it makes me think of bad stuff from the past.

Maggie: It didn’t help me and I don’t think it worked. [Numbers don’t agree with this.] 13/6/18: I don’t like tapping because it doesn’t help me, and I need to do work!
Appendix U

Covariances Between the Random Effects Across Classes and Across Students Within Classes

Mixed Model Analysis

Fixed Effects

Covariance Parameters

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\textsuperscript{a} Dependent Variable: RCMAS.

\textsuperscript{b} This covariance parameter is redundant.
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Heterogeneous Toeplitz
a. Dependent Variable: RCMAS.

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Heterogeneous Toeplitz
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### Appendix V

#### Student Preliminary Codes

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<td>B3: Simon 1, B2: Ben 1, A: Julianne 1, C1: Tina 1, C2: Alfred 2</td>
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<td>B1: Abby 1, B3: Cindy 1, B4: Paulo 1, B2: John 2, B4: Aria 1 (doesn’t change a thing), Paulo 2, A: Alison 1, Jack 1, C1: Cathy, Geraldine 1, C2: Kendrick 1, D: Oscar 1; Samantha 2*(felt the same, just more piped down)</td>
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<tr>
<td></td>
<td>Doesn't work as well for high intensity</td>
<td>B1, D 1</td>
</tr>
<tr>
<td></td>
<td>Don’t like writing in the book</td>
<td>B2: Finn 2, A: Julianne 2</td>
</tr>
<tr>
<td></td>
<td>Some points hurt or are silly</td>
<td>B4: Paulo</td>
</tr>
<tr>
<td></td>
<td>Didn’t always use the book</td>
<td>C2: Alexis, D: Adele 2; Samantha 2; Alex 1</td>
</tr>
<tr>
<td>10</td>
<td>Effective technique – helped me \nHelps with tests</td>
<td>B1: Maddie 1, Abby 1 \nB2: Millie 1, Ann 2 \nA: Annie 2, Alison 1 \nC1: Tina \nC2: Alfred 1</td>
</tr>
<tr>
<td>11</td>
<td>Gives me energy \nWakes me up \nMore confidence* (Kendrick 1)</td>
<td>B1: Maddie 1 \nC1: Tina 1 \nC2: Amy 1; Kendrick 1* \nD: Oscar 1, Samantha 1</td>
</tr>
<tr>
<td>12</td>
<td>Good idea, good to know \nThought it would be good (Oscar, check others) \nWould like to know more about it \nIt’s good to understand it \nGrateful for learning tapping</td>
<td>B1: Dimitrius 1 \nB2: Ben 1, Ann 2 \nB4: Aria 1 \nD: Oscar 1; Samantha 1,2; Alex 1*</td>
</tr>
<tr>
<td>13</td>
<td>Helps with physical symptoms</td>
<td>B2: Ann 2 \nC2: Kendrick 1</td>
</tr>
<tr>
<td>14</td>
<td>Helps with sad, lonely, anger, nervous feelings, feeling better</td>
<td>B1: Abby 1, Maddie 1, Dimitrius 1 \nB2: Ben 1 (check others), Finn 1, Ann 2 \nB4: Aria 2, Paulo 1,2 \nA: Annie 1, Alison 2, Julianne 1 \nC1: Damian 2, Geraldine 1, Tina 1 \nC2: Amy 1, Kendrick 1; Alexis 2 \nD: Adele 1; Oscar 1,2; Samantha 1; Alex 1</td>
</tr>
<tr>
<td>15</td>
<td>Helps with stress \nDisengaged from being uptight (Finn1)</td>
<td>B1: Abby 2 \nB3: Cindy 1 \nB2: Ben 1*, Millie 1, Finn 1 \nC1: Tina 1 \nC2: Alfred 1 \nD: Adele 1; Oscar 1,2; Samantha 1; Alex 1</td>
</tr>
<tr>
<td>16</td>
<td>It’s like meditating \nTakes your mind off things/distracted</td>
<td>B1: Maddie 1 \nC2: Alexis 2</td>
</tr>
<tr>
<td>17</td>
<td>Lead the class \nBuilds confidence</td>
<td>A: Annie 1, Alison 1 \nC1: Tina 2 \nC2: Alfred 2 \nD: Oscar 1; Alex 1</td>
</tr>
<tr>
<td>18</td>
<td>Like the actions \nLike doing it with class \nNothing to dislike about it (Amy 1)</td>
<td>B1: Dimitrius 1 \nC2: Alfred 2, Amy 1 \nD: Adele 2, Oscar 2; Samantha 1</td>
</tr>
<tr>
<td>19</td>
<td>Liked writing what happened to me and why numbers high/low – Book is OK</td>
<td>B1: Abby 1, Dimitrius 2 \nB2</td>
</tr>
<tr>
<td>Page</td>
<td>Section</td>
<td>Notes</td>
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<tr>
<td>------</td>
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</tr>
<tr>
<td>20</td>
<td>Main tapping</td>
<td>C1: Tina 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C2: Alexis 2</td>
</tr>
<tr>
<td>21</td>
<td>Noisy – Stage 1</td>
<td>A: Annie 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C1: Tina 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D: Alex 1</td>
</tr>
<tr>
<td>22</td>
<td>Noticed others tapping on their own</td>
<td>C1: Damian, Tina??</td>
</tr>
<tr>
<td></td>
<td>Noticed positive effect on others</td>
<td>C2: Alfred 1; Alexis 2</td>
</tr>
<tr>
<td>23</td>
<td>Not confident with technique</td>
<td>B3: Simon 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C1: Tina 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D: Alex 1* (used it w yr1-2) and class changed mood*</td>
</tr>
<tr>
<td>24</td>
<td>Others should learn it</td>
<td>B2: Finn 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B4: Aria 1</td>
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<tr>
<td></td>
<td></td>
<td>A: Alison 1, Julianne 1</td>
</tr>
<tr>
<td>25</td>
<td>Reasons for not tapping – too sad,</td>
<td>B1: Abby 1, Maddie 1, Dimitrius 1</td>
</tr>
<tr>
<td></td>
<td>angry, forget</td>
<td>B3: Cindy 2, Cedric 2, Simon 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B4: Aria 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B2: Ben 1, Millie 1, Finn 1,2, Ann 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B4: Aria 2, Paulo 1,2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A: Alison 2, Julianne 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C1: Geraldine 1, Tina 1*,2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C2: Alfred 1, 2; Amy 1; Kendrick 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D: Adele 1,2; Oscar 1,2; Samantha 1,2; Alex 1</td>
</tr>
<tr>
<td>26</td>
<td>Secret tapping – Karate chop</td>
<td>B1: Maddie 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B2: Ann 2, John 2 (OK for others to do)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B4: Aria 1, Paulo 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A: Annie 2, Alison 2, Julianne 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C1: Damian 2, Tina 2</td>
</tr>
<tr>
<td>27</td>
<td>Should continue tapping in school</td>
<td>B1: Cedric 2, Cindy 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B2: Finn 1, 2, Ann 2, John 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B4: Aria 2, Paulo 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A: Annie 2, Alison 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C1: Damian, Tina 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C2: Alfred; Alexis 2; Kendrick 2*; Alexis 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D: Adele 2; Oscar 2; Samantha 2</td>
</tr>
<tr>
<td>28</td>
<td>Stage 2 better – saying own word,</td>
<td>B1: Abby 1 (check others)</td>
</tr>
<tr>
<td></td>
<td>less noisy, less embarrassed,</td>
<td>B2: Finn 1</td>
</tr>
<tr>
<td></td>
<td>quicker</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stage 2 not better*(Kendrick)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doesn’t matter</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Strange / confusing / at first</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1: Abby 1 (check others)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B2: Finn 1</td>
</tr>
</tbody>
</table>
| **364** | **How does this work? (Amy, chk others)** | **A**: Alison 1, Jack 1 (‘it’s not my thing’)
**C1**: Geraldine
**C2**: Alfred 1,2*; Amy 1; Alexis 2
**D**: Adele 1; Alex 1 |
| **30** | **People will think I’m crazy It’s not cool** | **31** | **Suggest improvements Tap both sides of body** | **C1**: Cathy 1
**D**: Adele 2 |
| **B1**: Abby 1, Maddie2
**B3**: Cindy 1, Simon 1, Cedric 2
**B2**: Ben 1, Millie 1, Finn 1, Ann 2
**B4**: Aria 2, Paulo 1,2
**A**: Annie 2
**C1**: Cathy 1, Damian 2, Geraldine 1, Tina 1
**C2**: Alfred 1,2; Amy 1; Kendrick 1; Alexis 2
**D**: Adele 1; Oscar 1,2; Samantha 1; Alex 1 |
| **81** | **Takes a long time - Hard** | **B1**: Aria 1, 2
**C1**: Cathy 1
**C2**: Alexis 2; Oscar 1
**D**: Alex 1 |
| **82** | **Tapped by themselves** | **B1**: Abby 1, Maddie2
**B3**: Cindy 1, Simon 1, Cedric 2
**B2**: Ben 1, Millie 1, Finn 1, Ann 2
**B4**: Aria 2, Paulo 1,2
**A**: Annie 2
**C1**: Cathy 1, Damian 2, Geraldine 1, Tina 1
**C2**: Alfred 1,2; Amy 1; Kendrick 1; Alexis 2
**D**: Adele 1; Oscar 1,2; Samantha 1; Alex 1 |
| **33** | **Thoughts during tapping** | **B2**: Millie 1
**A**: Julianne 1 |
| **34** | **Time of tapping Only do it when you need to** | **B1**: Maddie 1, 2
**A**: Annie 1, Alison 1,2
**C1**: Damian
**D**: Adele; Samantha 2 |
| **35** | **Told others** | **B1**: Abby 1
**B3**: Cedric 2
**B2**: Millie 1, Ann 2
**B4**: Aria 2
**C1**: Cathy 1, Damian 2, Geraldine 1, Tina 1,2
**C2**: Alfred 1, Amy 1; Kendrick 1; Alexis 2
**D**: Adele 1,2; Samantha 1 |
| **36** | **Twice is more effective Twice is boring** | **B1**: Maddie 1
**C1**: Geraldine 1 |
| **37** | **Will continue to tap, or probably** | **B2**: Ben 1, Millie 1, Finn 2, Ann 2 (check others)
**B4**: Paulo 2
**A**: Annie 2, Alison
**C1**: Damian 2, Tina 2
**C2**: Alfred 1*; Alexis 2
**D**: Adele 2 |

Contradictory statements from Aria 2
Julianne, Tina (SH-R) preferred saying it out loud – stage 1;
### Appendix W

**Student Combined Codes and Categories**

1. **Effective**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>3</td>
<td>Calming</td>
</tr>
<tr>
<td>5</td>
<td>Calming</td>
</tr>
<tr>
<td></td>
<td>Concentrate / focus more – work is easier</td>
</tr>
<tr>
<td></td>
<td>Getting better grades</td>
</tr>
<tr>
<td>6</td>
<td>Cool down</td>
</tr>
<tr>
<td>10</td>
<td>Effective technique – helped me</td>
</tr>
<tr>
<td></td>
<td>Helps with tests</td>
</tr>
<tr>
<td>11</td>
<td>Gives me energy</td>
</tr>
<tr>
<td></td>
<td>Wakes me up</td>
</tr>
<tr>
<td></td>
<td>More confidence</td>
</tr>
<tr>
<td>13</td>
<td>Helps with physical symptoms</td>
</tr>
<tr>
<td>14</td>
<td>Helps with sad, lonely, anger, nervous feelings, feeling better</td>
</tr>
<tr>
<td>15</td>
<td>Helps with stress</td>
</tr>
<tr>
<td></td>
<td>Disengaged from being uptight (Finn1)</td>
</tr>
<tr>
<td>16</td>
<td>It’s like meditating</td>
</tr>
<tr>
<td></td>
<td>Takes your mind off things/distracted</td>
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</table>

2. **What was good about the project**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Breathing is good</td>
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<tr>
<td>7</td>
<td>Lead the class</td>
</tr>
<tr>
<td></td>
<td>Builds confidence</td>
</tr>
<tr>
<td>17</td>
<td>Like the actions</td>
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<tr>
<td></td>
<td>Like doing it with class</td>
</tr>
<tr>
<td></td>
<td>Nothing to dislike about it (Amy 1)</td>
</tr>
<tr>
<td>19</td>
<td>Liked writing what happened to me and why numbers high/low</td>
</tr>
<tr>
<td></td>
<td>Book is OK</td>
</tr>
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</table>
### 3. Thoughts about tapping

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>4</td>
<td>Changed my ideas about it</td>
</tr>
<tr>
<td>25</td>
<td>Reasons for not tapping – too sad, angry, forget</td>
</tr>
<tr>
<td>27</td>
<td>Strange / confusing at first</td>
</tr>
</tbody>
</table>

### 4. Doesn’t always work

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Doesn’t (always) work or didn’t feel as good some days</td>
</tr>
<tr>
<td>8</td>
<td>Doesn’t work as well for high intensity</td>
</tr>
<tr>
<td>23</td>
<td>Not confident with technique</td>
</tr>
</tbody>
</table>

### 5. Type and time of tapping

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>20</td>
<td>Main tapping preferred</td>
</tr>
<tr>
<td>26</td>
<td>Secret tapping preferred</td>
</tr>
<tr>
<td>28</td>
<td>Stage 2 better – saying own word, less noisy, less embarrassed</td>
</tr>
<tr>
<td>34</td>
<td>Time of tapping Only do it when you need to</td>
</tr>
<tr>
<td>36</td>
<td>Twice is more effective Twice is boring</td>
</tr>
</tbody>
</table>

### 6. Extend tapping

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>12</td>
<td>Good idea, good to know Thought it would be good (Oscar, check others) Would like to know more about it It’s good to understand it Grateful for learning tapping</td>
</tr>
<tr>
<td>22</td>
<td>Noticed others tapping on their own</td>
</tr>
<tr>
<td>24</td>
<td>Others should learn it</td>
</tr>
<tr>
<td>27</td>
<td>Should continue tapping in school</td>
</tr>
<tr>
<td>32</td>
<td>Tapped by themselves</td>
</tr>
<tr>
<td>35</td>
<td>Told others</td>
</tr>
<tr>
<td>37</td>
<td>Will continue to tap</td>
</tr>
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</table>
7. What I don’t like about tapping

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<tbody>
<tr>
<td>1</td>
<td>Boring</td>
</tr>
<tr>
<td>9</td>
<td>Don’t like writing in the book</td>
</tr>
<tr>
<td></td>
<td>Some points hurt or are silly</td>
</tr>
<tr>
<td></td>
<td>Didn’t always use the book</td>
</tr>
<tr>
<td>21</td>
<td>Noisy – Stagel</td>
</tr>
<tr>
<td>31</td>
<td>Takes a long time - Hard</td>
</tr>
</tbody>
</table>

Not Categorised

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</thead>
<tbody>
<tr>
<td>30</td>
<td>Suggest improvements – tap both sides of body</td>
</tr>
<tr>
<td>33</td>
<td>Thoughts during tapping</td>
</tr>
</tbody>
</table>

Categories – Summary

1. Tapping is beneficial
   - Calming
   - Concentrate more / work is easier
   - Cool down
   - Effective technique / helps with tests
   - Improves energy / greater confidence
   - Improves physical symptoms
   - Relieves emotional discomfort
   - Relieves stress
   - Takes your mind off things

2. What was good about tapping
   - Breathing
   - Lead the class
   - Builds confidence
   - Like the actions
   - Like doing it with class
   - Nothing to dislike about it (Amy 1)
   - Liked writing what happened to me and why numbers high/low
   - Book is OK

3. Thoughts about Tapping
   - Changed my ideas about it
   - Reasons for not tapping – too sad, angry, forget
   - Strange / confusing at first
4. Doesn’t always work
   • Doesn’t (always) work or didn’t feel as good some days
   • Doesn't work as well for high intensity
   • Not confident with technique

5. Type and time of tapping
   • Main tapping preferred
   • Secret tapping preferred
   • Stage 2 better – saying own word, less noisy, less embarrassed
   • Time of tapping
   • Only do it when you need to
   • Twice is more effective
   • Twice is boring

6. Extend tapping
   • Good idea, good to know
   • Thought it would be good (Oscar, check others)
   • Would like to know more about it
   • It’s good to understand it
   • Grateful for learning tapping
   • Noticed others tapping on their own
   • Others should learn it
   • Should continue tapping in school
   • Tapped by themselves
   • Told others
   • Will continue to tap

7. What I don’t like about tapping
   • Boring
   • Don’t like writing in the book
   • Some points hurt or are silly
   • Didn’t always use the book
   • Don’t like doing it when you don’t need to, eg 3xday
   • Noisy – Stage1
   • Takes a long time - Hard

Not Categorised

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</thead>
<tbody>
<tr>
<td>30</td>
<td>Suggest improvements – tap both sides of body</td>
</tr>
<tr>
<td>33</td>
<td>Thoughts during tapping</td>
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Appendix X

Sample of Teacher Focus Group Codes and Categories

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<tr>
<th>Item</th>
<th>Comment</th>
<th>Page Ref</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Stage 2 better</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Students leading it – more enthusiasm, ownership, control</td>
<td>1,5</td>
</tr>
<tr>
<td>3</td>
<td>Better doing it on own - silent</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Didn’t always do it – interruptions/diff teachers</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Classes are calmer – no dramas</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Continued to tap post research timeframe</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>A few students in one class got a bit over it</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Students used own words</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>One class gave students option of loud or silent</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>More honest with themselves St2 as they were more comfortable w process</td>
<td>4,5</td>
</tr>
<tr>
<td>11</td>
<td>Students were eager to write number down after tapping rather than wait to reflect. Think they would improve with practice</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Time of tapping had an impact</td>
<td>5,12</td>
</tr>
<tr>
<td>13</td>
<td>Teacher tapped for personal issues– good strategy to calm</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>Teach tapping to other classes, partac lower grades – stress anxieties presenting then &amp; inability to cope. Make it whole school process</td>
<td>6,7,13</td>
</tr>
<tr>
<td>15</td>
<td>Adopt process for age groups</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>Not a medicated process – can make it your own – a good strategy</td>
<td>7,14</td>
</tr>
<tr>
<td>17</td>
<td>Tapping allows people to take time out to settle</td>
<td>8</td>
</tr>
<tr>
<td>18</td>
<td>Start with principal then whole school PD</td>
<td>8,12</td>
</tr>
<tr>
<td>19</td>
<td>No concerns</td>
<td>9</td>
</tr>
<tr>
<td>20</td>
<td>Needs to be all in – differences bet 2 classes in the research</td>
<td>9,11</td>
</tr>
<tr>
<td>21</td>
<td>Peer group</td>
<td>9</td>
</tr>
<tr>
<td>22</td>
<td>In one class some students engaged some days &amp; not others</td>
<td>10</td>
</tr>
<tr>
<td>23</td>
<td>Opportunity to reflect was good for some – ties in with reflection in learning</td>
<td>11,15</td>
</tr>
<tr>
<td>24</td>
<td>Could link in tapping reflection with prayer journal</td>
<td>11</td>
</tr>
<tr>
<td>25</td>
<td>Noticed students tapping themselves</td>
<td>3,11,12</td>
</tr>
<tr>
<td>26</td>
<td>Students mostly used secret tapping on their own</td>
<td>11</td>
</tr>
<tr>
<td>27</td>
<td>Moving forward</td>
<td>12</td>
</tr>
</tbody>
</table>

INTERVIEW CODES – SCHOOL C STAGE 2

<table>
<thead>
<tr>
<th>Codes</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,12,13,16,17,23,25,26</td>
<td>Tapping is beneficial</td>
</tr>
<tr>
<td>7,21,4,22</td>
<td>Problems with managing tapping sessions</td>
</tr>
<tr>
<td>15,20,24</td>
<td>Suggestions for improvement</td>
</tr>
<tr>
<td>6,14,18,27</td>
<td>Extend tapping</td>
</tr>
<tr>
<td>1,2,3,8,9,10</td>
<td>Stage 2 better</td>
</tr>
<tr>
<td>11,19</td>
<td>Uncoded</td>
</tr>
</tbody>
</table>
Categories derived from coding – SCHOOL C – STAGE 2

1. Tapping is beneficial
   - Classes are calmer – no dramas
   - Time of tapping had an impact
   - Teacher tapped for personal issues – good strategy to calm
   - Not a medicated process – can make it your own – a good strategy
   - Tapping allows people to take time out to settle
   - Opportunity to reflect was good for some – ties in with reflection in learning
   - Noticed students tapping themselves
   - Students mostly used secret tapping on their own

2. Problems with managing tapping sessions
   - A few students in one class got a bit over it
   - Peer group
   - Didn’t always do it – interruptions/diff teachers
   - In one class some students engaged some days & not others

3. Suggestions for improvement
   - Adopt process for age groups
   - Needs to be all in – differences bet 2 classes in the research
   - Could link in tapping reflection with prayer journal

4. Extend tapping
   - Continued to tap post research timeframe
   - Teach tapping to other classes, partic lower grades – stress anxieties presenting then & inability to cope. Make it whole school process
   - Start with principal then whole school PD
   - Moving forward

5. Stage 2 was better
   - Stage 2 better
   - Students leading it – more enthusiasm, ownership, control
   - Better doing it on own - silent
   - Students used own words
   - One class gave students option of loud or silent
   - More honest with themselves St2 as they were more comfortable with process

6. Not coded
   - Students were eager to write the number down after tapping rather than wait a while to reflect. Think they would improve with practice
   - No concerns
### Appendix Y

**Words Used by Students for Tapping in Stage 2**

<table>
<thead>
<tr>
<th>Amazing</th>
<th>Less tired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angry</td>
<td>Light headed</td>
</tr>
<tr>
<td>Annoyed</td>
<td>Lonely</td>
</tr>
<tr>
<td>Bad</td>
<td>Mad</td>
</tr>
<tr>
<td>Bad life</td>
<td>Nervous</td>
</tr>
<tr>
<td>Below normal</td>
<td>Normal</td>
</tr>
<tr>
<td>Better</td>
<td>Nothing</td>
</tr>
<tr>
<td>Bored</td>
<td>Odd</td>
</tr>
<tr>
<td>Calm</td>
<td>OK</td>
</tr>
<tr>
<td>Cold</td>
<td>Pain</td>
</tr>
<tr>
<td>Concentrate</td>
<td>Pressured</td>
</tr>
<tr>
<td>Confidence</td>
<td>Proud</td>
</tr>
<tr>
<td>Cool</td>
<td>Relaxed</td>
</tr>
<tr>
<td>Crap</td>
<td>Relieved</td>
</tr>
<tr>
<td>Dead</td>
<td>Sad</td>
</tr>
<tr>
<td>Deader</td>
<td>Safe</td>
</tr>
<tr>
<td>Depressed</td>
<td>Scared</td>
</tr>
<tr>
<td>Disappointed</td>
<td>Sick</td>
</tr>
<tr>
<td>Disgusted</td>
<td>Sleepy</td>
</tr>
<tr>
<td>Disgusting</td>
<td>Sore</td>
</tr>
<tr>
<td>Energetic</td>
<td>Stressed</td>
</tr>
<tr>
<td>Excited</td>
<td>Terrible</td>
</tr>
<tr>
<td>Exhausted</td>
<td>The best</td>
</tr>
<tr>
<td>Fine</td>
<td>Thirsty</td>
</tr>
<tr>
<td>Focus</td>
<td>Tired</td>
</tr>
<tr>
<td>Frustrated</td>
<td>Tireder</td>
</tr>
<tr>
<td>Good</td>
<td>Unhappy</td>
</tr>
<tr>
<td>Happy / Happier</td>
<td>Upset</td>
</tr>
<tr>
<td>Hoarse throat</td>
<td>Very hot</td>
</tr>
<tr>
<td>Horrible</td>
<td>Worried</td>
</tr>
<tr>
<td>Hot</td>
<td>Worry</td>
</tr>
<tr>
<td>Hungry</td>
<td></td>
</tr>
<tr>
<td>Hurt</td>
<td></td>
</tr>
</tbody>
</table>

**WORDS USED BY STUDENTS AND ENTERED AS GREAT (G) IN SPREADSHEET:**

- Amazing
- Awesome
- Fabulous
- Fantastic
- Greater
- Magic
- Phenomena
- Pumped