WHEN TERRA IS NO LONGER FIRMA

ENABLING WELLBEING BY HELPING CHILDREN TO BE REFLECTIVE, RELATIONAL AND RESILIENT LEARNERS

A THESIS
Submitted in fulfillment
Of the requirements for the Degree
Of
Master of Arts
In Education
In the
University of Canterbury
By
Sandra Michelle Jamieson

University of Canterbury
2014
This thesis is dedicated to the staffs of all schools and preschools in Christchurch, particularly the staff of my own school and our friend and colleague, Cathy, who died suddenly in first school holidays of 2012.
# Table of Contents

**Acknowledgements** ......................................................................................................................... v  
**Abstract** .............................................................................................................................................. vii  
**Glossary** .............................................................................................................................................. viii  
**Chapter 1: When Terra was No Longer Firma** ............................................................................. 1  
  1.1 – All is Not Well With the Children .......................................................................................... 3  
  1.2 – The Unique Contribution of Schools .................................................................................... 5  
  1.3 – Indications That All is Not Well for Our Children ............................................................... 7  
  1.4 – Personal Statement .................................................................................................................. 10  
  1.5 – This Thesis ............................................................................................................................... 13  
**Chapter 2: Holistic Wellbeing** ....................................................................................................... 17  
  2.1 – Te Whare Tapa Wha and a Māori Worldview ...................................................................... 18  
  2.2 – Identity ...................................................................................................................................... 21  
  2.3 – Identity and Māori Worldview in the Classroom ................................................................. 24  
  2.4 – The New Zealand Curriculum and 21st Century Learners .............................................. 25  
  2.5 – Mindfulness as a Tool for 21st Century Learners ............................................................... 30  
**Chapter 3: Enabling Wellbeing by Being Reflective** ................................................................. 33  
  3.1 – Being Reflective ...................................................................................................................... 34  
  3.2 – Teaching Self-Reflection ........................................................................................................ 36  
  3.3 – Self-Reflection – Emotional and Social ............................................................................... 36  
  3.4 – Self-Reflection – Intellectual ................................................................................................ 38  
  3.5 – Self-Reflection – Spiritual ...................................................................................................... 40  
  3.6 – Self-Reflection – Physical ....................................................................................................... 42  
  3.7 – New Zealand Curriculum and Identity ..................................................................................... 44  
**Chapter 4: Enabling Wellbeing by Becoming Relational** ............................................................ 47  
  4.1 – Relationships are Crucial ......................................................................................................... 48  
  4.2 – Connection with Ourselves ..................................................................................................... 50  
  4.3 – Connection Between Teachers and Students ......................................................................... 51  
  4.4 – Children Connecting with Other Children ............................................................................. 53
4.5 – Connection Between Home and Schoolkoa... 55
4.6 – The Connection Between Relationships and Resiliencekoa... 56
4.7 – Connection with the Natural Environment and a Māori Worldview of the
Significance of Relationshipskoa... 58
4.8 – Relationships and Identitykoa... 61
4.9 – Mindfulness and Relationshipskoa... 62

Chapter 5: Enabling Wellbeing by Building Resilience
The '6th R' of Educationkoa... 65
5.1 – Enabling Wellbeing by Building Resiliencekoa... 69
5.2 – Te Whare Tapa Wha and a Māori Worldviewkoa... 73
5.3 – How Can Mindfulness Help to Build Resilience?koa... 76

Chapter 6: Mindfulness – A Pathway to Wellbeingkoa... 79
6.1 – Mindfulness Explainedkoa... 79
6.2 – Mindfulness and Attunementkoa... 83
6.3 – Mindfulness in Schoolskoa... 85
6.4 – Mindfulness Programmes
   6.4.1 – The InnerKids Programmekoa... 86
   6.4.2 – Mindful Schoolskoa... 87
   6.4.3 – Mindfulness in Schools Projectkoa... 88
   6.4.4 – MindUPkoa... 88
   6.4.5 – Mindfulness-Based Stress Reduction for Children (MBSR-C)koa... 89
6.5 – Mindfulness Programmes Evaluatedkoa... 90

Chapter 7: Conclusionkoa... 96

Appendixkoa... 106

Referenceskoa... 115

List of Figures
1. Description of earthquake effects by Mercalli and Richter Scaleskoa... 106
2. New Zealand Curriculum Overviewkoa... 107
3. Image illustrating the interconnection between Te Whare Tapa Wha and a Māori
   Worldview, Identity, The New Zealand Curriculum, and Mindfulnesskoa... 108
4. School Implementation Plan for Mindfulnesskoa... 109
5. List of nine middle prefrontal functions and selected referenceskoa... 112
6. Karakia after felling tree for Te Arawa canoekoa... 114
I am very grateful for the 2014 Primary Principals’ and Teachers’ study Award that has enabled me to spend the best part of a year reading, thinking and writing about how we can help our children to be reflective, relational and resilient learners in the constantly moving world in which they find themselves.

I am much indebted to Dr Russell Blakelock, paediatric surgeon and psychiatry trainee, who pointed me in the direction of mindfulness. In a conversation we had about the plight of students in Christchurch schools as a result of the earthquakes, Russell suggested I look at mindfulness practices and how these might help students become more settled, focused, tolerant, and less impulsive. Following his recommendation of a key writer and thinker in this field I spent some time researching and found a curriculum that enabled the teachers at my school to introduce mindfulness to our students.

Huge thanks also to Tony Mabin, my Acting Principal at the time. Tony’s encouragement was instrumental in my setting up a mindfulness programme across the school. He saw the potential of mindfulness for our children and provided all the resources required to make it happen. He never doubted that it could be done and was behind it every step of the way.

A particular nudge came my way in another conversation when I was told that ‘if mindfulness was a drug doctors would be prescribing it wildly!’ Thanks to Dr Brett Mann for this helpful phrase that has stuck with me through my research and writing.

The teachers at my school deserve special mention. While struggling with their own earthquake damage in many forms including the potential loss of jobs through the merger, my colleagues were always committed to improving the lot for our students. They took on yet another extra, the mindfulness programme, and gave it their best shot in order to improve the wellbeing of our children.
I am much indebted to a good friend Ateremu McNeill for teaching me about tikanga and wairua Māori, and for organising both Hinematau McNeill and Angus Macfarlane to read this thesis to advise on the integrity of my understanding and communication of a Māori worldview. Thank you Hinematau for your helpful and practical feedback. Particular thanks to Angus Macfarlane for his reflections and insight.

And finally, sincere thanks to my supervisors, Dr David Small and Trish McMenamin, who, alongside their encouragement, challenged my assumptions, helped me over hurdles and read with an eye for detail.
Abstract

This thesis focuses attention on the ongoing effects of the earthquakes on children in Christchurch. It identifies the learning and behavioural difficulties evident in an increasing number of students and cautions the use of the word ‘resilient’ to describe children who may be just managing. This assumption has a significant impact on the wellbeing of many Christchurch children who, disaster research literature warns, are likely to be under-served. This thesis suggests that, because of the scale of need, schools are the best place to introduce practices that will foster wellbeing.

Mindfulness practices are identified as a potential tool for ameliorating the vulnerabilities experienced by children, while at the same time working to increase their capabilities. This thesis argues that, through mindful practices, children can learn to be more reflective of their emotions and respond in more considered ways to different situations. They can become more relational, having a greater understanding of others through a deeper understanding of themselves, and they can build resilience by developing the protective factors that promote more adaptive functioning.

This thesis identifies the strong links between mindfulness and the holistic wellbeing concept of Te Whare Tapa Wha and a Māori worldview. Strong links are also identified with the vision, values and key competencies of the New Zealand Curriculum and 21st Century learners.

Both short and long term recommendations are made for the introduction of mindfulness practices in schools to enhance the wellbeing of children.
Glossary of Terms

Ako. To learn, teach or train.
Aroha. To love or sympathise.
Awhinatanga. Helping or serving others.
Hapu. Sub-tribe.
Hauora. Māori philosophy of wellbeing.
Hongi. Press noses.
Iwi. Tribe.
Kaumatua. Elder (male).
Kotahitanga. Becoming one out of many and bringing a sense of unity.
Kowhiri. Choice.
Kuia. Old woman.
Manaakitanga. A reciprocal, unqualified caring/hospitality.
Marae. Area in front of meeting house.
Mihi. Greet.
Poutama. Lattice weaving design symbolising the stairway of learning.
Pukumahi. Industriousness.
Pumanawatanga. Extending outwards and breathing life into.
Rangatiratanga. Being good at things, getting things done.
Taha hinengaro. Mental/emotional health.
Taha tinana. Physical health.
Taha wairua. Spiritual health.
Taha whānau. Social/family health.
Taha whenua. Environmental wellbeing and connection with the land.
Tangata. Person, people.
Te Whare Tapa Wha. Māori model of holistic wellbeing.
Tuakana/Teina. Older brother/sister relationship with younger brother/sister.
Tupuna. Ancestor, grandparent.
Turangawaewae. A place to stand, a place to call home.
Tutohutanga. Caring and sensitivity to others.
**Wairua/Wairuatanga.** Spirituality.

**Whaiwahitanga.** Participating, contributing.

**Whakapapa.** Genealogy, cultural identity.

**Whakawhānaungatanga.** Building and maintaining interconnectedness through enduring relationships.

**Whānau.** Extended family.

**Whānaungatanga.** Familiness.

**Whare.** House.
Chapter 1
When Terra was no longer Firma

Early on the morning of September 4, 2010 the people of Christchurch woke to what sounded like a train fast approaching their houses, and a violent shaking accompanied by the sound of crashing and breaking glass. This noise and shaking lasted for just over 40 seconds in real time, but considerably longer in our minds.

As daylight revealed the full impact, people stumbled from their homes to find tumbled chimneys and, in many places, geysers of silty water coming out of roads and footpaths, and people’s own properties. We had just been introduced to ‘liquefaction’ previously unknown to the general population but a word that would become commonly heard in the conversations of Cantabrians from preschools to retirement homes.

Schools were closed for a week with a lack of power and water, and damaged sewage systems being the main causes. Only a few buildings were damaged. These were more of a novelty than an inconvenience as they served to remind us that we had experienced a major earthquake. Many people temporarily left Christchurch for a variety of reasons – one of them being the persistent aftershocks being experienced and the likelihood that these would continue for an uncomfortable length of time.

The following week students returned to their schools and these became a ‘safe place’ with little damage, familiar surroundings and people, and regular routines. There were anxieties, experienced by some people more than others, but predominantly we were ‘resilient’ and we carried on as best we could albeit with a little more caution and a little less naivety. Christchurch had been shaken by a 7.1 magnitude earthquake and while we were somewhat surprised and shattered, damage was minimal. We were incredibly lucky not to have had any deaths, largely because at the time of the earthquake most people were asleep in their beds. The aftershocks were petering out, with a few exceptions, people were regaining confidence and life was getting back to normal.
Until 12.51pm on February 22, 2011.

This earthquake came as a sharp shock physically, emotionally and mentally. It was felt violently both externally and internally. People were at work and school – families were spread across the city, the CBD was destroyed, emergency services were struggling to manage, many roads were gridlocked or impassable and communication was difficult. The death toll was growing. This is what I was hearing from a transistor radio that belonged to a group from an evacuated preschool that was sitting on the grass next to us that February afternoon in 2011.

At the time of the earthquake I was at QE11 pool on the east side of Christchurch with about one hundred year four to six students, three other teachers, two trainees (it was their second day at our school) and a few parents. Half of the group was in the pool and the other half in their togs waiting on the tiered seating to get into the pool next.

As the ground moved water from the swimming pool was pushed up into a huge wave that, on its return, washed some of the children out of the pool. The rest of the children were shepherded out of the pool by their swimming instructors. We waded out of the building by two quite different routes and met on the grass outside where we established that everyone was safe and, unbelievably, there were no injuries.

We made contact with the bus driver who was to collect us after the swimming session and asked him to return as soon as possible to get us. We discovered that due to liquefaction on the roads he would be unable to get to us. So there we were – about ten adults with a hundred children in their togs, half of these wet and the other half dry but cold, and we had no way to get them back to school, about three kilometres away. Their clothes were left in the building and we were not allowed back in to get them. There was no option to walk because the children had no shoes and the liquefaction, by now above our knees, would have made it impossible. All we could do was sit and wait.
Thanks to a few brave and dedicated parents with large cars and expert knowledge of local streets and alleyways (including footpaths!) we were all returned to school by four o’clock that afternoon.

This is not only a story about *our* experience but an example of the thousands of similar stories that played out around Christchurch that day.

As the day progressed, and we were subjected to frequent substantial aftershocks, we learnt of the utter destruction of the CBD, we saw the damage to our local neighbourhoods and our own homes and we were exposed to the powers of nature. We came to the realisation that the earth was not firm beneath our feet and our normal was no longer. For everyone living in Christchurch that day, and through the months of aftershocks that were to follow, the Terra was no longer Firma.

1.1 All is Not Well with the Children

As time went on it became more obvious that we were a city of two halves – those on the West who predominantly suffered little or no damage and were relatively alright, and those on the East whose land was less solid, and who suffered significant hardships in their everyday lives. If we fast-forward the clock to January 2014 we can begin to understand the impacts of these events on the children in Christchurch, and those on the east of the city in particular.

During the earthquakes many people were forced to leave damaged, roofless or unlivable homes. Later, homes were red-zoned, in which case they were not safe to be lived in and residents had to move out. Many children have either moved out of their home or have had friends and neighbours move away. In many neighbourhoods there are small pockets of houses that are lived in and these are surrounded by abandoned homes awaiting demolition. Some families were renting their homes and had to move elsewhere because rents rose significantly due to the reduced supply of housing and the increasing demand for safe properties. Some of these families chose to leave, because they could, for a town or city that didn’t shake.
In many families parents lost businesses and jobs as a result of the earthquakes. This, along with the anxiety of living with ongoing aftershocks and children who couldn’t sleep at night, placed huge stress on families.

Shops, churches, preschools, libraries and cafes closed, some temporarily but many permanently, meaning that the local primary school was often the only community meeting-place left.

Some school rolls dropped considerably, particularly on the East, and this meant that children were losing several friends within a short space of time.

Families were facing housing issues, financial issues, lack of sleep, difficulty driving on trashed roads and navigating ever-changing routes due to closed roads, moving out of their homes for several weeks for EQC\(^1\) repairs and dealing in their own ways with ongoing aftershocks. An increased number of marriages were not surviving these upheavals and increasing numbers of children had to deal with family strain and break-ups on top of everything else.

Furthermore, the Ministry of Education (MOE), in its Greater Christchurch Education Renewal Programme, announced that some schools were to close and others merge. While this action may be an inevitable result of building and land damage and shifting populations, it failed to take into account the needs of the children attending those schools (Shirlaw, 2014). This meant new schools for many children and the loss of the one community meeting-place (an important place of gathering) that was left.

Four years and over 14 000 earthquakes later\(^2\), the children of Christchurch carry on with life as best they can. On the surface most children appear to be managing, and

---

1 Earthquake Commission – a New Zealand Government agency providing natural disaster insurance to residential property owners.
2 During the four years from September 2010 to September 2014 Christchurch has experienced approximately 14000 earthquakes. Of these, 60 earthquakes were rated ‘strong to intense’, approx 480 earthquakes rated ‘moderate to rather strong’, approx 3800 earthquakes rated ‘slight’ and approx 9800 earthquakes rated ‘weak’. [www.canterburyquakelive.co.nz](http://www.canterburyquakelive.co.nz) (retrieved 06.09.14). See Appendix 1 for description of intensities by Mercalli and Richter Scales.
this is interpreted and described by many of those who are alongside them as resilience. A closer look reveals indications that all is not well with our children.

This is consistent with research that suggests that many children remain competent in the face of adversity but we should not presume that these children are invulnerable (Boyden and Mann, 2005). Boyden and Mann state that “in fact, evidence suggests that the effects of stress are cumulative in that children who are exposed to several stressful events and circumstances are at particular risk of being overwhelmed emotionally and psychologically … children who appear resilient in the short term may not be so in the longer term” (Boyden & Mann, 2005, p. 18). The indications that all is not well with our children will be discussed later in this chapter.

1.2 – The Unique Contribution of Schools

Although disaster research is a growing field the effects of disasters on children and young people have been “seriously understudied” and therefore there is the risk of children being “underserved” in post-disaster situations (Winkworth, 2007, p. 31). It has also been identified that the “emotional health needs of children and adolescents after a natural disaster cannot be met by existing mental health services” (McDermott, 2014, p. 11). In this thesis I want to suggest that while existing mental health services are unable to cater for the vast majority of the needs of children after a natural disaster, it is possible that schools hold the potential to serve these needs.

As professionals in the education system teachers are in a unique position to monitor children, ensuring that they are aware of stressors and consequences in terms of children’s learning, behaviour and physical and mental health, and putting in place practices that will ensure that children are served well in the post-disaster context. Because schools are the gathering places of almost all of the city’s children any programmes or practices put in place in the schools have the ability to have a widespread affect, thus serving many more children at any given time than would be possible through the mental health services. When looking for opportunities for disaster resilience learning in Australia Dufty (2014, p. 12) states that “schools were
seen as the best venues for forging durable collective values, therefore they are suitable for building a culture of prevention and disaster resilience”. Building this culture of disaster resilience needs to be a priority in schools given that the United Nations Convention on the Rights of the Child has identified, as one of its central priorities, the protection of children exposed to adversity. Boyden and Mann state that “modern policy has clearly embraced the ethical and moral view that children have a right to special consideration and that children exposed to exceptionally harsh situations merit the greatest concern” (2005, p. 3). It is clear then, that something must be done for the children and it would be expedient to look at how this could be done in schools.

The initial earthquakes in Canterbury came as a shock for residents who were totally emotionally unprepared for disasters of this magnitude. Although aftershocks were then expected, residents revisited the initial experience with each aftershock that came, not knowing how big it was going to be until it was over and not knowing when the next one would come. Nicola Shirlaw, writing for the Child Poverty Action Group of New Zealand, suggests that these earthquakes and their aftershocks came as a stark illustration of the type of disaster where there is no controllability – because of the nature of earthquakes there is no warning that they are coming and therefore no opportunity to minimise loss, damage or injury. Because there is no defined endpoint to the earthquakes, as can be seen by the ongoing aftershocks “this both extends the possibility of further injury and damage, and causes people to relive the sensations of the initial traumatic experience, delaying their recovery” (Shirlaw, 2004, p. 4).

While children in Christchurch suffered the stress associated with the initial earthquakes as well as ongoing aftershocks, they have also had to deal with secondary stressors that are an inevitable outcome of a disaster such as this. Gawith (2013, p. 397) describes secondary stressors as “continuing or chronic problems that occur as a consequence of a disaster and impact on people’s emotional, cognitive, social and physical functioning”. She cites research (Lock et al., 2012) identifying the following as secondary stressors: economic stressors, problems with compensation, recovery of

---

3 www.un-documents.net/crc.htm
4 www.cpag.org.nz
and rebuilding homes, loss of physical possessions and resources, health-related stressors, stress related to education and schooling, stress arising from media reporting, family stressors, social stressors, stress arising from loss of leisure and recreation, and stress related to changes in people’s views of the world or themselves. While many of these are experienced first-hand by children some have a more immediate effect on their parents. However the impact of these stressors on parents and other adults is indirectly, yet no less significantly, experienced by children.

1.3 – Indications that All is Not Well for Our Children

An article in the Christchurch Press cites the unpublished research of Dr Kathleen Liberty who suggests with caution that “a generation of children may be carrying around the unprocessed trauma of the Canterbury earthquakes” (McCrone, 2014, p. C2). Liberty’s research has found that twenty percent of five year olds starting school in the south and east of Christchurch are displaying “the classic symptoms of post-traumatic stress disorder” (McCrone, 2014, p. C2). The symptoms Liberty describes in her research are being seen and identified by primary school teachers and Resource Teachers of Learning and Behaviour throughout Christchurch and across all levels of the school. Children are lacking focus and concentration leading to difficulties with learning, and they lack the tolerance needed to interact cooperatively with peers in the playground and in the classroom. In the article Liberty also highlights behaviours such as children being irritable and clingy, aggressive and withdrawn, and having issues with sleeping, nightmares and bedwetting. A Canberra study of post-traumatic symptoms in children has found these same behaviours and includes hyper-arousal, impulsivity, depressive mood and psychosomatic symptoms. These are also present in Christchurch schools (Winkworth, 2007).

On its website the Canterbury Primary Principal’s Association (2013) reports the results of a survey on ‘Current Behaviour and Wellbeing’ in 2013. The findings show that 70 percent of schools responded that anxiety had increased since 2012, with 23 percent identifying this increase as being significant. The main ongoing issues and

---

concerns for schools outside of behaviour were reported as being child mental health (in 74 percent of schools) and parent mental health (in 73 percent of schools). These were both increases on the previous year. Interestingly the survey found that housing, transience due to earthquakes, lack of food, and poverty were also main issues and these had all shown an increase from 2012 numbers. The survey also reports the number of applications made to the Ministry of Education for assistance from the Interim Response Fund (IRF). This fund is provided as a “positive initiative to support schools and help raise their capacity and capability to manage behavioural crises” (MOE, 2007b, p. 1). In 2012 there were 295 applications (an increase of 33 percent from 2011) and at the end of the first term of 2013 169 applications had been made (an increase of 50 percent on the same time in 2012). The report made special note of the data showing that IRF applications for New Entrant to Year Two students was 50 percent more than any other year group. This finding is in line with that of Dr Liberty above. Added to these statistics is the 40 percent increase in demand for child and youth community mental health services in Canterbury (Carville, 2014).

In response to disasters such as bushfires and floods in Australia, Megan Mitchell informs that “the main message is that we need to be cognisant of both the capabilities and vulnerabilities of our youngest citizens in preventing, preparing for and responding to emergencies” (2014, p. 5). These capabilities and vulnerabilities relate to structures, procedures and to people. Mitchell identifies three different stages where these need to be considered. The first stage is the moment of the disaster, the second is the immediate aftermath and the third is well down the track. There is alignment here with the sequence of psychological phases identified by Gluckman (2011a, p. 2); the impact phase, the heroic/honeymoon phases, and then the phases of disillusionment and reconstruction that seem to alternate as descriptors as we get ‘well down the track’.

At the moment of the earthquake on February 22nd children and school staffs responded effectively, having participated in regular, routine emergency drills. Even though most children were outside enjoying their lunch break at the time, the drills had, largely, prepared them well. This may be due, in part, to improvements and refinements made to procedures in the immediate aftermath of the September
earthquakes. Interestingly, “although 185 people died that day, not one child, student or teacher … in a school or a centre\textsuperscript{6} at the time, lost their lives” (O’Connor & Takahashi, 2014, p. 44).

In the immediate aftermath of the February 22 earthquakes the Child Poverty Action Group identifies that “parents, schools and doctors reported an increase in behavioural issues and problems relating to anxiety, depression and stress” (Shirlaw, 2014, p. 5).

Well down the track, now four years since the first major earthquake in Canterbury, we continue to see these same issues. Interestingly it is not uncommon to hear comments made about the resilience of children and young people in Christchurch and the concern is that adults who make this presumption may be overlooking the tell-tale signs that a child may need support. Boyden and Mann warn that “we need to recognise that concepts such as resilience and coping should be applied with caution and don’t imply that children who appear to have adapted successfully to difficult situations suffer no ill-effects” (2005, p. 18). They suggest that the challenge is to find ways to support children’s resilience and coping.

The fundamental ‘ingredient’ in disasters is vulnerability (Lewis, Kelman & Lewis, 2011; Hewitt, 1983). After a disaster the response to the vulnerability of buildings is the “continual pursuit of greater achievement and efficiency such as in improved earthquake resistance … (and) advances in structural design based on failures and disasters involving workers and subsequent users” (Lewis et al., p. 97). However vulnerability also applies to people and our response should be this same continual pursuit to strengthen the capabilities of individuals and groups of people in the aftermath of a disaster. Gawith states that “the psychological aspects of adjusting to massive interruptions to daily life are as important in recovery from a disaster as repairing and reconstructing cities and homes” (2013, p. 396). She points out that psychological recovery is not as “visible or tangible” as the rebuild of cities and houses (Gawith, 2013, p. 396). This could be a reason for people making flawed assumptions that the psychological recovery of children is progressing well.

\textsuperscript{6}The quote refers to preschool centres.
1.4 – Personal Statement

This research is in response to the reports (Dunbar, 2013; McCrone, 2014; Shirlaw, 2014) of the learning and behavioural problems experienced by many Christchurch school children since September 2010, and my own observations and discussions with colleagues in my role as deputy principal of a primary school in the east of Christchurch during that time and up until the closure of the school at the end of 2013. In alignment with research the teachers were reporting that children were having difficulty focusing and concentrating for any length of time, were irritable and less tolerant of others, and for some children, emotional development appeared to have regressed. Many were in a state of hyper-arousal with the repeated sound of concrete-laden trucks driving past the school gate being interpreted as the onset of yet another earthquake.

A subsequent conversation with a professional in psychiatric health about the appropriate responses alerted me to the usefulness of the practice of mindfulness. Mindfulness has been practised in many countries for hundreds of years but has gained hugely in popularity since the 1990s through developments in neuroscience that have been enabled by brain imaging. This imaging has provided scientific evidence that the regular practice of mindfulness develops physical and neurological benefits (Ross, n.d., p. 3). There is now significant research that shows the positive effects on mental health of mindfulness practices amongst adults (Greeson, 2009; Davidson et al., 2003; Creswell, 2007), and a growing body of research showing positive effects in adolescents (Zack et al., 2014; Kuyken, 2013). Mindfulness practices with children are still at a comparatively early stage, however a research base is beginning to emerge (Saltzman & Goldin, 2008; Schonert-Reichl & Lawlor, 2010; Semple et al., 2010; Zack et al., 2014; Meiklejohn et al., 2012). There appears to be a trend in Western countries for mindfulness practices to be initiated in the health field and later brought into education. In New Zealand we are seeing the beginnings of mindfulness in schools with a trial programme over eight weeks in five classrooms, being run by the New Zealand Mental Health Foundation (MHF). The MHF is also setting up
mindfulness professional development for educators to help sustain initial efforts in schools.

An internet search provided information about a small number of mindfulness resources for children. One of these looked particularly appropriate for introducing mindfulness in my school given that it was set out in lesson format and catered for the age range required. This meant that the content of each lesson was provided for teachers so it was not difficult to establish and teachers would be able to begin without delays. It was necessary to be mindful that the teachers were also recovering from the trauma of the earthquakes and it was important that there was no increase to their workload. The resource had an endorsement from Daniel Siegel who had been recommended as one of the leading researchers and writers in the neuroscience field. Siegel is Clinical Professor of Psychiatry at the UCLA School of Medicine and Executive Director of the Mindsight Institute that works to link science with practical applications to cultivate mindsight skills and wellbeing in adults and children.

I began introducing a mindfulness programme into each classroom in my school. The initial lessons in the resource were to give children a basic knowledge of the way their brain works including how it responds to stress and help them to differentiate between mindful and unmindful thoughts and actions. They were introduced to ‘deep belly breathing’ (the core practice) to calm the mind, and the process of sharpening up their awareness of their senses of sound, sight, smell, taste, touch, and movement. Six weeks after beginning this work teachers’ anecdotal feedback about what they were noticing was recorded. Children were using the core practice regularly and some talked about using it at home, particularly when they were trying to get to sleep at night. They were using their knowledge of the brain including correct terminology, and talking to their parents about it at home. It also provided a collective language that enabled teachers and students to discuss thoughts, feelings and actions. Childrens’ heightened awareness of their senses was transferred into other curriculum areas, for example, it could be seen through a deeper description in their writing. Children were able to distinguish between mindfulness and unmindfulness with the associated language being heard by teachers in the playground. Such were the positive initial
outcomes that the majority of teachers planned to incorporate mindfulness into their classroom practice on an ongoing basis.

Siegel’s research informs us that the brain is made up of two very separate circuits, one of the physical world and the other the world of the mind. Mindsight (insight into the mind) enables people to be empathetic and recognise that we are all interconnected. Our relationships (our life-blood – this is how we share information and is what gives us resilience), our brain (the social organ and the energy that enables the sharing), and the mind (where the flow of information is regulated) all work together to produce neural integration (the organisation of all our thinking and, therefore, the heart of health in body, mind and relationships). Siegel suggests that by putting the ‘New 3Rs’ (reflection, relationships and resilience) at the heart of the school curriculum this will enable children to develop connections in the middle prefrontal cortex of the brain. This area of the brain is responsible for bodily regulation, attuned communication with themselves and others, emotional balance, extinction of fear, flexibility – the ability to stop and think before reacting, insight, empathy, morality – the understanding of their connectedness and that they are all part of a greater whole, and the ability to access intuition (2007).

Siegel (2007, p. 10) cites Kabat-Zinn’s operational working definition of mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment”, or for children Kaiser-Greenland’s “being aware of what’s happening as it’s happening”. Mindfulness is supported by a wealth of neuroscience research and is currently being used widely in the health sector in New Zealand and further afield. In 2012 the Mental Health Foundation of New Zealand produced a report titled ‘Mindfulness in Education: Evidence base and implications for Aotearoa New Zealand’. It acknowledges that there is a growing body of research exploring the effects of mindfulness on the general wellbeing and academic performance of children and adolescents, and concludes that “mindfulness has great potential as a key strategy for positively impacting on the learning and wellbeing outcomes of children and young people in education settings” (p. 9). It is this growing body of research and my
own experience in teaching mindfulness at a primary school significantly affected by the Christchurch earthquakes that led to this thesis work.

1.5 - This Thesis

This thesis is a response to the identified needs of the children of Christchurch as they recover from the initial trauma of several major earthquakes and ongoing aftershocks, and as they deal with the secondary stressors on a daily basis. The thesis suggests that schools are in a unique position to decrease the vulnerability of children and to give them understanding and strategies that will enable them to build capability when faced with challenges such as recovering from disasters, and to thrive as they navigate and negotiate their new normal. It will be argued that practising mindfulness, encouraging children to use their ‘mindsight’ is an effective tool that would enable teachers to build this capability.

This introduction has outlined the context in which Christchurch finds itself four years after the first major earthquake in September 2010. It describes the initial impacts of the earthquakes on the children of Christchurch and the secondary stressors that still remain today, both physical and psychological. It introduces the idea of teaching mindfulness in a school setting as a tool to help children’s capabilities when faced with trauma or challenging situations.

Chapter Two reviews the literature and explores the concepts of identity, Te Whare Tapa Wha and a Māori Worldview, the New Zealand Curriculum (NZC) particularly as it applies to 21st Century learners, and mindfulness. These concepts have a significant overlap, sharing much common ground and understanding. They are significant in the way that they work together to foster wellbeing for students. For this reason Chapter Two details each concept to provide a background to the following chapters.

Daniel Siegel’s work with mindfulness introduces us to the ‘New 3Rs’ of education. These move beyond the first 3Rs of reading, (w)riting and (a)rithmetic, to give us the
‘4th, 5th and 6th Rs’ of reflection, relationship and resilience. Chapters Three, Four and Five introduce and explore these concepts.

Chapter Three ‘Being Reflective’ defines reflection and distinguishes between metacognition – thinking about our thinking, when working on mastering an academic skill, and meta-awareness – being aware of our awareness as we reflect on the inner nature of our lives. The chapter highlights the emphasis in schools to be reflective but the lack of guidance about how this can be achieved. It outlines a basic understanding of how emotions interact with the brain and explains why emotion is crucial to effective thinking. The chapter explains the role of this ‘4th R’ in developing the capacity for executive attention, prosocial behaviour, empathy and self-regulation. Connections are made with the New Zealand Curriculum, Te Whare Tapa Wha and children’s identity.

Chapter Four ‘Becoming Relational’ illustrates the importance of a child’s network of relationships for establishing a connectedness that leads to wellbeing. It discusses the relationship children have with themselves, with teachers and with their peers. It also highlights the significance of relationships in ensuring a good connection between home and school. The quality of relationships is a key to developing resilience. This chapter explores the link between relationships and resilience. Subscribing to an indigenous worldview the chapter discusses the significance of connection with the natural environment and how this is an integral part of relationships for Māori. Identity formation is linked to relationships in this chapter which also explores how mindfulness can lead to the development of positive relationships.

Chapter Five ‘Building Resilience’ establishes a definition of resilience, cautioning the over-generalised use of the word particularly in the context of Christchurch children’s post-earthquakes wellbeing. It distinguishes between recovering from trauma and being resilient. The chapter highlights that there is an innate resilience in all children and therefore, given appropriate support, the potential for all children to become more resilient. This chapter explores the environmental factors that put children at risk and the protective factors that can promote a more adaptive
functioning. It goes on to discuss the three major theories that influence the construction of resilience, and the internal factors such as self-esteem and self-efficacy, and external factors such as family support and community connections that play a part. The chapter highlights self-awareness and emotional intelligence as key attributes for becoming resilient. Connections are made with the New Zealand Curriculum, Te Whare Tapa Wha and children’s identity.

Throughout Chapters 3, 4 and 5 connections are made with children’s identity, The New Zealand Curriculum and a Māori health model called Te Whare Tapa Wha. When researching the areas of mindfulness, reflection, relationships and resilience strong links can be seen in these areas. Each chapter explores these connections under its own heading. To enable a greater understanding of identity, the New Zealand Curriculum and Te Whare Tapa Wha, the second chapter of this thesis reviews the current literature in these areas. A review of the mindfulness literature is also included in Chapter Two.

Chapter Six discusses mindfulness in more depth as a pathway to wellbeing. It explores the sources of mindfulness practices that date back thousands of years, and the reasons why these practices are becoming popular in modern health and, more recently, education contexts. The potential of fit between mindfulness practices and 21st Century learning is also discussed, with a brief explanation of the neuroscience behind these practices. The chapter identifies three approaches for integrating mindfulness practices in classrooms, describes these approaches and discusses subsequent empirical research related to the practices, and how this might be helpful to students in Christchurch. It is suggested that mindfulness practices would potentially lead to a more broad identity with strong links to a Māori concept of whakawhānaungatanga. A critique of the current research is provided.

Chapter Seven concludes the thesis reiterating the urgency for enhancing the wellbeing of New Zealand’s children, particularly those in Christchurch. It recalls the vision of the NZC that calls for confident, connected and actively involved life-long learners and how this can be brought about by helping children to be reflective,
become relational, and build resilience. The chapter reaffirms the significance of New Zealand’s bicultural foundation and recognises the contribution it can make to mindfulness, identity and wellbeing. Throughout the chapter recommendations are made for the introduction of mindful practices in New Zealand schools to enable our children to flourish.
The class teacher was introducing the year five and six students to some mindfulness practices to help them to become more relaxed and focused in class. She had noticed that, since the earthquakes, many of the students found it difficult to bring their focus to the task at hand, and to pay attention to what they were doing for any length of time. A significant number of these students were experiencing an increased level of anxiety with minds in multiple places at any one time and bodies struggling to be still. Earlier in the week they had talked about how their brains work, particularly the functions of the prefrontal cortex, the hippocampus and the amygdala, and this had prepared them for yesterday’s discussion and activities about mindful and unmindful thoughts and actions. They really enjoyed discovering how their brain works and especially loved using the technical language that seemed to reappear in little conversations around the room throughout each day. This morning’s session was an introduction to mindful breathing and the teacher was hopeful that this would develop into a regular classroom practice to help the students become calm and focused.

They sat cross-legged in a circle on the classroom floor. The teacher made a resonating sound using a chime and the students listened for the sound to end. This would be the signal to start breathing mindfully, and would be used again at the end to signal for the children to open their eyes. They practised deep belly breathing – inhaling and filling their tummies with air and then slowly exhaling again. The teacher guided them to notice the air coming in through their nose, chest and tummy and then to follow the breath as it went back out again. The idea was to keep focused on their breathing and if their minds started to think of something else they were to try and return to noticing their breathing. They all spent a few minutes trying this out so they felt comfortable to try the routine together for the first time.

Eyes were closed and the chime sounded. At the end of the sound the teacher guided the students through the one-minute breathing exercise. For a first time practice the majority of the students were making a pretty good job of it. A few wriggled, still a bit
self-conscious and two inquisitive students were peeping through half-closed eyes to check out what was happening. The chime sounded again and when the sound stopped eyes were opened. A kind of calm was evident as the children looked around at each other but nobody said anything. Amelia was the first to comment. She was a friendly and endearing student who found it very difficult to contain her bubbly and active personality. Amelia had become progressively more unsettled since the earthquakes and had recently experienced the death of a member of her extended family. Her eyes lit up as she announced, ‘I’m going to do this in bed at night – it might help me get to sleep!’

Amelia’s reaction indicates how simple classroom practices can support students’ wellbeing and give them skills they can transfer to other contexts.

2.1 - Te Whare Tapa Wha and a Māori Worldview

“The Māori holistic view of the world is often described as the state where body, mind and spirit are not separate identities, but are interlinked to capture the concept of wholeness” (O’Connor & Macfarlane, 2002, p. 22). This state of holistic wellbeing is illustrated in Te Whare Tapa Wha, a model for hauora (wellbeing) developed from a hui of Māori health workers in 1982 (Rochford, 2004). Te Whare Tapa Wha is currently an integral part of both the New Zealand Health and Education systems (MOE, 2007a; Ministry of Health, 2014). It is based on the strength of the four walls of the whare – Taha hinengaro (mental/emotional health), Taha tinana (physical health), Taha whānau (social/family health) and Taha wairua (spiritual health), when being developed or treated in a balanced way (Durie, 1994, as cited in Macfarlane, Glynn, Grace, Penetito & Bateman, 2008). Tangaere describes the poutama, a lattice weaving design symbolising the stairway of learning where the “layered steps represent the many dimensions which make up one’s personality” (1996, p. 111). These dimensions, illustrated as the four walls of the whare (above) are viewed holistically. The steps are ascended as competence increases reflecting the Māori narrative of Tane’s climb to gain knowledge from the three baskets of knowledge.

---

7 Not her real name.
8 The teacher was following the MindUP Curriculum.
Each plateau of the staircase represents the time it takes to understand at each level, and then the next step is taken with the assistance of whânau or others. This concept is reinforced through songs, stories and karakia (Tangaere, 1997). Except for the spiritual dimension this aligns with Glasser’s concept of ‘four pathways’ to success that show the wellbeing of the individual being deeply embedded in the wellbeing of the group (Macfarlane, 2010). Glasser, a psychiatrist known for his thinking about personal choice, personal responsibility and personal transformation, suggested that giving and receiving love, achieving a sense of worth in one’s own eyes and in the eyes of others, having fun, and becoming self-disciplined were pathways to success (Macfarlane, 2010).

While people would naturally hold a common understanding of what is meant by physical wellbeing, social/emotional wellbeing, and mental wellbeing, there is not yet a common understanding or definition for spiritual wellbeing. Researchers (Vader 2006; Perrin & McDermott, 1997; Dhar, Chaturvedi & Nandan, 2011) say that this is because there have been problems with disassociating ‘spiritual’ from ‘religious’, and the ‘difficulty of identifying, defining and measuring dimensions of spiritual health (Vader, 2006, p. 457). For the purpose of having a shared understanding in this thesis (and recognising that there is a dearth of definitions in health research) it is necessary to agree on a meaning of spiritual health. Dhar et al. provide a useful definition suggesting that spiritual health is a “state of being where an individual is able to deal with day-to-day life in a manner which leads to the realization of one's full potential; meaning and purpose of life; and happiness from within” (2011, p. 277). Vader suggests that “… one might venture to include in the dimension of spiritual health at the individual level elements of generosity, charity, solidarity, self-abnegation, concern for others, self-sacrifice, self-discipline, and self-restraint. At the societal level, indicators might be manifestations of solidarity, equity, justice, sexual equality, unity in diversity, participative decision-making, and power sharing” (2006, p. 457).

The literature suggests that the spiritual dimension is especially significant because while spirituality is one of the four dimensions required for overall wellbeing, it also serves as an underlying or umbrella dimension meaning that without spiritual health
there cannot be health in the other three dimensions. Russell’s model of wellbeing illustrates this calling spiritual wellbeing a “unifying force within individuals which integrates all other dimensions” (Russell 1996, cited in Perrin and McDermott, 1997, p. 90). Zohar and Marshall also support this view saying that spiritual intelligence is the “ultimate intelligence because it is the necessary foundation for the effective functioning of the other intelligences” (2000, as cited in Lantieri, 2001, p. 18). This is particularly so for Māori where wairua (spirituality) is considered to be the most essential requirement for health, without it “an individual can be considered to be lacking in wellbeing and more prone to ill health” (Māori Mental Health, n.d.). Melbourne (1997, as cited in O’Connor & Macfarlane, 2002, p. 231) sees spirituality as synonymous with values, and “what is valued socially, culturally, politically and educationally are the cornerstones of a Māori worldview”.

Having a respectful relationship with all creation is central to the Māori worldview (O’Connor & Macfarlane, 2002, p. 226). Key to this is the building of social and cultural structures around being interconnected and interdependent (Rochford, 2004; Macfarlane, 2004). This concept is known as whakawhānaungatanga. Cavanagh (2009a, as cited in Cavanagh, Macfarlane, Glyn & Macfarlane, 2012, p. 449) reiterates that “building and maintaining interconnectedness through enduring relationships is all important”. This type of relationship has more fluid interpersonal boundaries than that of a Western worldview in that it requires people to be highly responsible for the wellbeing of others (Cavanagh et al., 2012, p. 118). The Māori principle of Ata “is considered a vital cultural tool created to shape and guide understandings of relationships and wellbeing” (Pohatu, 2004, p. 4). Pohatu suggests that Ata focuses on relationships, gently reminding people how to behave when relating with people, kaupapa and environments. It accords quality space of time and place, demands effort and energy, conveys respectfulness, reciprocity, and the need to be reflective and disciplined. Ata ensures that relationships are such that they bring about a transformation process (Pohatu, 2004). This principle has a clear alignment with mindfulness.
It is useful to note that in building community Western culture might come from the relational perspective that we are all one people – we are all the same, whereas Māori would see people firstly as being different but having the ability to work together (Macfarlane, Glynn, Grace, Penetito & Bateman, 2008; Metge, 2001).

Having a respectful relationship with all creation also includes a keen respect for place. O’Connor and Macfarlane suggest that both geography (of home) and lineage contribute to a strong sense of identity for Māori (2002, p. 22). A stable sense of identity is synonymous with what I am calling here holistic wellbeing.

2.2 - Identity

According to Bauman (2004, p. 17) identity is the “loudest talk in town, the burning issue on everybody’s mind and tongue”. Identity has become one of the most commonly used terms in the social sciences, yet it has no widely agreed meaning (Cote, 2001; Scott and Marshall, 2009).

A Dictionary of Modern Sociology suggests that the word ‘identity’ is used “widely and loosely in reference to one’s sense of self, and one’s feelings and ideas about oneself” (Scott & Marshall, 2009, p. 109). Seigel (2010, p. 32), however, cautions that our thoughts, feelings, memories, beliefs and intentions are temporary. They are not the totality of who we are therefore they are not our identity. Castree, Kitchin and Rogers’ Dictionary of Human Geography suggest that identity is an “individual or shared sense of self … how people see themselves and express who they are inside to others” (2013, p. 89). A collective understanding could be that identity is an understanding of oneself and the expression of this self to others.

Identity is a relatively new concept born, as Bauman (2004, p. 20) suggests out of the “crisis of belonging”.

In the past, individual identity formation has not been necessary as generations of families tended to live most of their lives in one place, alongside the same people.
Philippe Robert illustrates this stating that “for most of the history of human societies, social relations have stayed enclosed firmly in the realm of proximity” (cited in Baumann, 2004, p. 18). He goes on to say that for most people ‘society’ was equal to the immediate neighbourhood and “inside that network of familiarity from the cradle to the coffin, each person’s place was too evident to be pondered, let alone negotiated” (cited in Bauman, 2004, p. 18).

With the increasingly fast pace of technological developments societies have become more fluid and people have become more mobile. Bauman suggests that there has been a “liquefaction” of social frameworks (2004, p. 51) and Easthope that we are “moving away from identities based on place and towards hybrid and flexible forms of identity” (2009, p. 62). Scott and Marshall (2009) also identify this move. Individuals are no longer part of a familiar network from the cradle to the grave and the need to belong has led to the pondering and negotiation of identity.

Writing in the early twentieth century Freud believed that identity or self-concept was developed in the preschool years. A healthy personality was made up of a balance between the Id, the Ego and the Super Ego. Following this Erikson’s work moved identity formation beyond childhood, believing that “the consolidation of identity marks the end of childhood” (Marcia, 1993, as cited in Cote 2001, p9). Erikson identified three aspects of identity; the ego identity that builds on Freud’s work, personal identity, and social and cultural identity. Marcia followed with operational definitions of Erikson’s work and a character typology of identity development. Later theorists (Berzonsky, Grotevant, Waterman, Kurtines, Adams and Cote) have expanded on Marcia’s work with slightly different focuses (Schwartz, 2001). Common amongst them is the development of personal identity through social interaction.

In our liquid and mobile world “construction of identity is an individual project, and individuals carry responsibility for making their lives work” (Easthope, 2009, p. 65). Constant change means that there is no useful map or framework that can be handed on to the next generation. Personal identities are made up of an essentialised identity where there is a core essence that is innate and natural, and a socially constructed or
performative identity that is based on social markers (Castree et al., 2013, p. 89). This is aligned with Erikson’s definition of identity that includes both internal and social-contextual dimensions (Schwartz, 2001).

In the construction of identities Bamberg (2010) outlines three dilemmas that individuals must face in order to differentiate and integrate. These are the sameness of a sense of self across time and constant change, our uniqueness given that we are the same as everyone else, and the construction of agency in our fit with the world. Alongside these dilemmas are the questions that play a central role in identity development; who am I? What are my values and goals? What is my life purpose? What makes me different from other people? Am I really the same person from one year, or decade, to the next? (Schwartz, 2001). In navigating these questions and dilemmas Marcia developed a character typography based on exploration and commitment. It has been shown that wellbeing, or a sense of satisfaction with current identity is highest in the committed statuses (Schwartz, 2001).

Within the area of identity formation three dichotomies are played out; stability and change, differentiation and integration, and hearth and cosmos or home and horizon. Easthope (2009, p. 77) argues that “stability of the external environment has been seen as important for maintaining coherent identities, while change in the external environment has been seen as important for identity development”. Adams identifies asserting oneself as a unique individual (differentiation) and the process of becoming connected to others as part of a larger group (integration) as key aspects of identity formation (Schwartz, 2001; Bamberg, 2010). The hearth and cosmos (Tuan, 2001), home and horizon (Buttimer, 1980, as cited in Easthope, 2009), refer to the need for a close and familiar place that provides security alongside a more vast and abstract place that encourages adventure.

The home and horizon dichotomy recognises another aspect of identity formation, the relationship between identity and place. Over the last forty years “there has been much research that has sought to understand the relationship between identity and sense of place ...” (Castree et al., 2013, p. 90). Bauman tells of a diverse group of multi-ethnic
people in Poland who had to give their nationality in a census. They answered what made the most sense to them “we are locals, we are of this place, we are from here, we belong here” (2004, p. 18). This is particularly true of the Māori worldview that “locates people within the context of the natural environment, rather than apart from the environment” (Durie, 2011, p. 236). In Māori cosmology there is a common whakapapa for Māori that the union of Ranginui and Papatuanuku populates the environment. This means that humans have plants and other creations as their ancestors, making current inhabitants of the environment effectively their cousins. The responsibility of humans can be seen, for example, in karakia before eating, and returning the first fish caught from the sea.

This location within the natural environment relates to the concept of Turangawaewae which is usually the marae. It is considered to be a place to stand or a place to call home. The World Health Organisation has acknowledged the “unique spiritual and cultural relationship between indigenous peoples and the physical environment and believes that this relationship provides valuable lessons for the rest of the world” (Rochford, 2004, p. 45). This is reflected in current geographical discourse that says that for many cultures an attachment to place is shaping our identity (Easthope, 2009).

2.3 – Identity and Māori Worldview in the Classroom

To bring the Māori worldview to an educational context Macfarlane suggests that there are five ‘Māori frames of reference’ that would lead to an “educultural approach” (2004, p. 8). Along with whānaungatanga (establishing relationships) already discussed, these are rangatiratanga (being good at things or getting things done), manaakitanga (a reciprocal, unqualified caring), kotahitanga (becoming one out of many and bringing a sense of unity) and pumanawatanga (extending outwards and breathing life into the other four frames of reference) (Macfarlane, 2004). Where a Western worldview recognises student giftedness based on academic achievement, a Māori view of giftedness would add, as equally important, being exceptional, largely

---

9 For example, after the felling of a large tree for the hull of the Te Arawa canoe a karakia was sung as ‘a farewell from the trunk to its parent stump’ while they were still touching. See Appendix 6 for the karakia. (Stafford, D. (1967). Te Arawa: A history of the Te Arawa people. Reed Publishing, New Zealand).
in Macfarlane’s five frames above, but specifically in areas of Māori arts and culture, and culturally valued qualities such as “awhinatanga (helping and serving others), maia (courage and bravery), manaakitanga (hospitality), Wairuatanga (spirituality), whānaungatanga (familiness), aroha ki te tangata and tutohutanga (love for, caring and sensitivity to others) and pukumahi and pukeke (industriousness and determination)” (Bevan-Brown, 2005, as cited in Webber, 2011, p. 231). Culturally gifted Māori students are considered more likely to use these qualities for the common good whereas Western giftedness is often seen as more individualistic (Webber, 2011, p. 231).

Along with this, Edwards, Lambert and Tauroa state that inclusive in a Māori education worldview is curriculum based around Māori methods, Māori structures, Māori content, and Māori personnel (2007).

It is important to acknowledge the difficulty when translating Māori concepts into English words and understanding. In this process the concepts can become watered down and the cultural significance lost, resulting in hegemony. In this thesis I will approach the Māori concepts with integrity whilst acknowledging that I am Pakeha and my understanding is not a lived one. I take heed of Heaton’s assessment of the broad use of hauora in The New Zealand Curriculum where Home Economics has been included, and an English translation of ‘wellbeing’ is a simpler concept. Heaton states that “understandings of hauora need to go beyond their simplified interpretations within curricula” (2011, p. 99). It is intended that this thesis will go beyond a simplified interpretation.

2.4 - The New Zealand Curriculum and 21st Century Learners

The current New Zealand Curriculum sits amongst other curricular that have been recently designed in response to the pressures of globalisation, particularly to economic competitiveness and citizenship. While each country’s curriculum has its own features, the curricula share much in common. The trend is for these curricula to
be framed around key competencies and be based on child-centred approaches that see teachers as co learners and facilitators of learning (Priestly and Biesta, 2013).

In her foreword to the New Zealand Curriculum (MOE, 2007a, p. 4) Karen Sewell illustrates the process that has led to the current document. She indicates that since the 1992 Curriculum, our first outcomes-based curriculum, the rate of social and technological change has accelerated and workplace demands have become more complex. This led to a review during 2000 and 2002 that resulted in the publication of a draft curriculum in 2006. Submissions were received and analysed and the current New Zealand Curriculum (NZC) was published the following year.

The NZC begins with the vision of “young people who will be confident, connected, actively involved, lifelong learners” (MOE, 2007a, p. 7). The successful outcome of this vision depends on the holistic wellbeing of the students. The NZC illustrates three pillars that hold up its vision. These pillars - a set of values, key competencies and learning areas - are undergirded by the principles of high expectations, Treaty of Waitangi, cultural diversity, inclusion, learning to learn, community engagement, coherence and future focus. The values, which are to be “encouraged, modelled and explored” are excellence; innovation, inquiry and curiosity; diversity; equity; community and participation; ecological sustainability; integrity; and respect (MOE, 2007a, p. 10)\(^{10}\). It is expected that these be evident throughout the school in everyday actions and interactions. The key competencies are seen as capabilities for living and lifelong learning and are the key to learning across the curriculum. They are thinking; using language, symbols and text; managing self; relating to others; and participating and contributing (MOE, 2007a, p. 12). The NZC is considered to be the “grandparent” document (Henderson, 2003, p. 105) from which individual schools construct a school curriculum that is more locally relevant. It is likely that the rhetoric of the NZC could be given significant substance through the introduction of mindful practices in schools.

---

\(^{10}\) See Appendix 2 for an image showing the overview of the vision from the New Zealand Curriculum.
As with any curriculum document there is much debate surrounding The New Zealand Curriculum. The debate ranges from those who see the Curriculum as a new challenge that will put students at the centre of learning and usher in a new concept of a ‘21st Century Learner’, to those who see it as a watered down (Reid, 2006) version of traditional subject areas that lack any sense of content and impose a fixed set of values on students (Henderson, 2003). The literature sees an interplay between those who put the student at the centre and use the learning areas as the content to enable the teaching of key competencies and values, and those who consider the importance of centrality of traditional subject content.

At one end of this discussion Brough supports the student-centred nature of the Curriculum. She highlights the interconnections that can be made across disciplines suggesting that “real life problems seldom fall into separate curriculum areas” (2008, p. 18). Beane supports this view and further acknowledges the need to look for something beyond the traditional curriculum areas suggesting that our deep entrenchment in separate subject thinking has “virtually paralysed our capacity to imagine something different” (Beane, 1991, as cited in Brough, 2008, p. 20). Because it is less prescriptive than previous documents the NZC allows more “freedom to experiment” and enables teachers to include the teaching of key competencies, particularly thinking skills (Begg, 2006, p. 1).

At the other end of the discussion Donnelly (2002) finds evidence of “many flaws and faults” (p. 48). The main arguments are that a student-centred approach “is, at best, misguided”, the curriculum is “politically motivated, politically correct, and a form of social engineering”, and that it should comprise subjects rather than broad learning areas (Donnelly, 2002, p. 17). Henderson (2003) also argues for more integrity in the traditional subject areas. It has been suggested that new curriculum outcomes have stripped knowledge out of the curriculum and there is a failure to “differentiate between theoretical and everyday knowledge, thus potentially depriving students of access to powerful knowledge necessary for modern life” (Young, 2008; Wheelahan, 2010; Rata, 2012, as cited in Priestly & Biesta, 2013, p. 5).
It is important to note that New Zealand is one of the few countries that have retained an outcomes-based education (OBE). This has been identified as an issue by those who have reviewed the NZC. Donnelly suggests that the OBE system has been adopted uncritically in the light of a dearth of research to support it (2007). Other countries, particularly those that outperform New Zealand in the Trends in International Mathematics and Science Study, have chosen a syllabus approach over an outcomes-based approach. Donnelly quotes Wilson, the previous chief executive officer of the Australian Curriculum Corporation and supporter of outcomes-based education, as saying that “the present form of outcomes has probably outlived its usefulness” (Donnelly, 2007, p. 3). Wilson also suggests that it would be difficult to find curricula outside of Australasia that have persisted with OBE.

Given the identified weaknesses of a curriculum where learning areas are outcomes-based, and that the interconnected nature of learning areas has the ability to water down the effect of traditional based subject teaching, it becomes imperative to find a way to express the NZC that enhances student learning, likely in the way that it was intended. As discussed above two of the three pillars of the NZC are the values and the key competencies. While there is little research about values teaching in New Zealand, “global attention is being directed towards student wellbeing and its positive influence on academic progress, as well as its synergies with affective and social dimensions” (Notman, 2012, p. 43). It must, therefore, be worth focusing on these ‘affective and social dimensions’ brought about by the teaching of values and key competencies to positively influence academic progress. In order to do this Notman’s research identifies the need to establish a common understanding and language around values, an increase in teachers’ knowledge base, and further research that strengthens values implementation in New Zealand schools (Notman, 2012, pp. 47-48).

The need for a focus on teaching competencies and values, often called dispositions or capabilities, is in response to pessimism about the wellbeing of learners identified by teachers, researchers and commentators (Ecclestone, 2013). In the past the teaching of these dispositions has been seen as necessary and useful for disaffected students whose achievement was poor and who had rising levels of stress and anxiety. There is
now a widespread view that this disaffection is more prevalent in the general school population and likely to increase (Ecclestone, 2013, p. 82). It is particularly the case in Christchurch, although a different type of disaffection, where a generation of school students has experienced ongoing earthquakes and the wide-ranging implications of these, and where “one in five children exhibit the classic symptoms of post-traumatic stress disorder” (McCrone, 2014, p. C1).

While some writers would say that the teaching of values is problem-laden (Donnelly, 2007) and detracts from the teaching of traditional subject areas (Begg, 2007), there is a growing body of research that supports the teaching of values and claims that it has a positive effect on deeper and more holistic understandings of subject knowledge (Lovat, Dally, Clement & Toomey, 2011). This is not seen as an either/or question because it is “impossible to conceptualise ‘learning to learn’ independently of learning ‘something’” (DfE, 2011, as cited in Ecclestone, 2013, p. 86). Begg (2006) agrees suggesting that, to be effectively taught, competencies or dispositions need to be linked with the learning areas in the curriculum. The Values Education Good Practice Schools Project identifies a ‘double helix’ effect where there is a coalescence of values education and good teaching. Data from this project support the findings that values education relies on and enhances quality teaching and quality teaching relies on and enhances values education (Lovat et al., 2011).

Carefully executed, the three pillars of the NZC are claimed to have the potential to provide students with an education that is strong in traditional subject knowledge and that develops the dispositions or capabilities that are necessary for life-long learning.

Holistic wellbeing of students is necessary if the vision of the NZC is to be realised. A strength of the NZC is that it is a framework document that allows schools to interpret its vision based on local knowledge and need. Te Whare Tapa Wha is particularly helpful in interpreting this vision because it provides a strong foundation for understanding wellbeing, suggesting that there needs to be a focus on three aspects of health – physical, mental and emotional, and social – undergirded by spiritual health which must be present for the healthy development of the other three aspects. A sense
of satisfaction with current self-identity comes from the wellbeing established through these aspects of health. The tool I am suggesting is most helpful in enhancing student wellbeing is mindfulness. It is able to bring together the four aspects of health and a secure identity, and reflect the NZC’s vision for confident, connected, actively involved learners.

2.5 – Mindfulness as a Tool for Twenty-First Century Learners

A simple definition of mindfulness is “the awareness of present experience with acceptance” (Siegel, R. 2010, p. 25). This awareness is critical in the world in which we live where we are always thinking about the past, planning and worrying about the future and multi-tasking in order to get everything done. We then miss the opportunities to appreciate the present moment by, for example, wholeheartedly enjoying a meal or fully listening to a child (Siegel, R. 2010, p. 10). “Many studies point to the power of mindful awareness to promote wellbeing in many domains of our lives” (Siegel, D. 2010, p. 74).

Although it is an ancient concept, there is a rapidly increasing research literature base on mindfulness, particularly in The United States and The United Kingdom. This is beginning to build momentum in Australia and New Zealand. Initially the research was based on mindfulness in adults, particularly in medical and mental health settings. Research is now growing in the teenage area. Some pioneering work is being done with primary school aged children, with anecdotal success, but this is yet to be supported by a significant body of research data. The research currently available shows that mindfulness practice by children reduces stress and symptoms of depression and anxiety, at the same time increasing calmness, self-esteem, self-acceptance and self-regulation (Mental Health Foundation [MHF], 2012). An overview of mindfulness-based interventions carried out by The Mental Health Foundation of New Zealand suggests that “mindfulness practices enable us to recognise and overcome the many ways in which we tend to get caught in rumination, distraction and resistance. They reveal the inherent ability of the mind and body to
rebalance and sustain wellbeing, and help us to discover positive new perspectives, behaviours and solutions” (MHF, 2012, p. 1).

Contemporary mindfulness practices began in the health sector and these are increasingly now being seen in the education sector in what is termed the ‘third wave’ of mindfulness-based programmes. Curricula and programmes such as MindUP (The Hawn Foundation, USA); InnerKids (Susan Kaiser-Greenland, USA); Mindful Schools (USA); Mindfulness in Schools Project (University of Exeter, UK), and Move into Learning: An Arts-based mindfulness classroom intervention (USA), have been devised to teach mindfulness to school students. Campbell identifies that the explosion in enthusiasm for teaching mindful practices to children has been greater than the evidence to support them so far, but goes on to cite four new studies that have been published in recent months. These studies found that both teachers and students reported positive outcomes that were maintained after the programmes had ended (2013, p. 1). There is growing curiosity and interest amongst educationalists to initiate programmes in New Zealand schools like the ones discussed above. These have been running in the United States and The United Kingdom over the past few years and have more recently found their way into Australian, and a small number of New Zealand, schools.

It is important that mindfulness is led by facilitators who are well-grounded in their own practice of mindfulness and are competent at sharing it with others (MHF, 2012). Catering for this are The Garrison Institute in The United States and Universities in the United Kingdom who have set up teacher education courses and qualifications for teaching mindfulness in schools. While this training is established in other countries it is not yet available in New Zealand. There is a level of urgency, particularly in Christchurch, for mindfulness to be introduced in schools. While not the optimum option, most of the programmes already discussed could be carried out in schools with limited training because they are divided into activities that could be easily managed by regular classroom teachers. In the longer term, for a successful mindfulness programme to be set up in New Zealand Schools it would be necessary to offer teacher
professional development and to explore the use of bicultural principles and models (MHF, 2012).

This chapter has discussed the essential elements of holistic wellbeing. It has explored the concept of Te Whare Tapa Wha and the four aspects of health that are required for wellbeing. Identity literature has been reviewed and links with Te Whare Tapa Wha in developing identity have been made. Holistic wellbeing and positive identity are both elements of the vision of the NZC. The three concepts of Te Whare Tapa Wha, positive identity, and NZC have been identified in this chapter as having overlapping areas of clear commonalities. I believe that the tool that would help to bring them together to enhance wellbeing is mindfulness as the diagram below illustrates. 11 Siegel’s ‘new 3Rs’ of education - reflection, relationships, and resilience - are developed through mindfulness practices. The next three chapters explore these new 3Rs.

---

11 See Appendix 3 for a full-sized image of the overlapping areas and the relationship to mindfulness.
A few weeks down track and the students are once again sitting in a circle cross-legged on the classroom floor. The mindful breathing practice has been established as a regular part of the class programme to start the day, to begin the afternoon session and just before the end of the school day. All but two students (who are still closely watching the other children) are making the most of these times.

However, this session is about mindful tasting and the students have washed their hands and are expectantly looking at the serviette sitting in front of them. Having already experienced mindful seeing and mindful smelling, the students are ready for this next activity. The teacher has a collection of food ‘morsels’ – raisins, sliced carrot, grapes, chocolate buttons, pretzels and marshmallows. One morsel at a time the teacher gives each child a piece to taste. The students begin by seeing the morsel in the palm of their hand in a mindful way. The discussion that ensues is about shape, colour and texture. After this they close their eyes and smell the morsel recalling anything the smell reminds them of. Finally they are able to taste the morsel. They are asked to put it into their mouth focusing on how it feels, using their tongue to move it around and noticing whether their mouth is watering and what they can taste. The teacher repeats this routine with each of the different morsels. Interesting comments abound about their preferences and the excitement about eating chocolate and marshmallows compared to the slice of carrot!

The best part of this session for the teacher was the discussion that followed this mindful eating exercise, and came from the children’s reflections as they ate mindfully. The children spoke about how, because they had really used their senses, it felt like they had eaten such a lot, and they felt full, even though they had eaten only a morsel of each thing. They decided that if they slowed their eating down at meal times they

---

12 Siegel, 2007, p. 259
would be able to enjoy it more because they could use all of their senses to appreciate the food. Amazingly the discussion led to ‘those restaurants where you can choose what you want and you just pile your plate up with everything’. The students themselves decided that the best value for money was to enjoy a smaller meal by eating it mindfully rather than filling a plate to overflowing and ‘just eating it all because you could have as much as you wanted’. ¹³ Using mindfulness the children were able to eat more reflectively.

3.1 – Being Reflective

There are two types of reflection – metacognition (thinking about thinking) and meta-awareness (being aware of awareness by reflecting emotionally, socially, physically and spiritually on information from the senses). This chapter will explore these types of reflection and how they can lead to wellbeing.

The search for a definition of reflection, more specifically self-reflection, reveals a range of ideas. General literature defines reflection as the act of reflecting, a fixing of the thoughts on something, careful consideration, a thought occurring in consideration or meditation.¹⁴ Self-reflection means giving serious thought about one’s character and actions (Stevenson & Lindberg, 2010). Educational research and literature refine these definitions for the context of learning. For example, Lew and Schmidt comment that while there is a variety of heterogeneous definitions of self-reflection the definitions are “united in their advocacy to improve student learning” (2011, p. 530). They suggest that self-reflection refers to “the processes that a learner undergoes to look back on his past learning experiences and what he did to enable learning to occur … and the exploration of connections between the knowledge that was taught and the learner’s own ideas about them …” (Stevenson & Lindberg, 2011, p. 530).

John Dewey, a prolific thinker and educational reformer, saw the need to be disciplined in self-reflection as an antidote to the forces of distraction that are everywhere around us.

---

¹³ The teacher was working from the MindUP Curriculum.
(Cottle, 2002). Hullfish and Smith agree, seeing reflection as different from looser kinds of thinking because it is being directed or controlled by a purpose (1961).

The vision of the NZC is for young people to be confident, connected, and actively involved life-long learners (MOE, 2007, p. 7). This vision is upheld by three pillars – the values, the key competencies, and the learning areas. One of the principles undergirding the three pillars of the New Zealand Curriculum is that of “learning to learn” (MOE, 2007, p. 9). Under this heading the curriculum explicitly states that all students will reflect on their own learning processes so they learn how to learn. However, more implicitly, the vision and values of the curriculum are dependent on student self-reflection in all that they require. The NZC identifies that encouraging reflective thought and action is an effective pedagogy – a teacher action that promotes student learning. More specifically it states “students learn most effectively when they develop the ability to stand back from the information or ideas that they have engaged with and think about these objectively” (MOE, 2007a, p. 34). This is referred to as ‘metacognition’ – students thinking about their own thinking.

Zimmerman’s cycle of self-regulation is one model that is commonly referred to when discussing self-reflection. Self-reflection is part of Zimmerman’s cycle of the self-regulated learning process. Zimmerman (2000) proposed that self-regulating learners engage in a cycle where they set goals and plan strategically (forethought); perform the task by focusing attention and self-monitoring (performance); and then reflect on their performance (self-reflection) feeding back into the forethought stage, and continuing through the cycle toward goal completion. This cycle of self-regulation, of which self-reflection is a phase, can be employed when an academic skill needs to be mastered, or when there is a problem to be solved (Schunk & Zimmerman, 1998, p. 2). Similar to Zimmerman’s cycle of self-reflection is the ‘Learning Cycle’ developed by David Kolb. His cycle, a sequence of experience, reflection, abstraction, and active testing, leads to deep learning (Kolb & Kolb, 2009, p. 299).
3.2 – Teaching Self-Reflection

While self-reflection is both explicit and implicit in the NZC there is little guidance for teachers about exactly what it entails and how it is to be incorporated into teaching programmes. Desautel suggests that self-reflection is often encouraged in professional literature and in the classroom but “seldom explored or explained as a phenomenon” (2009, p. 2001). Apart from research around the use of tools such as ‘reflection journals’, portfolios, and writing to encourage self-reflection for tertiary students, literature searches reveal little about what self-reflection is or how it can be used, particularly with younger students.

This type of reflection lends itself to more academic pursuits in that it is part of a process that helps a student to solve problems or master an academic skill. That self-reflection improves academic achievement is widely supported by literature (Lew & Schmidt, 2011; Kolb & Kolb, 2009; Desautel, 2009). Therefore, given the model of Te Whare Tapa Wha as a holistic approach to student wellbeing, it is necessary to explore how self-reflection in all four contexts – intellectually, spiritually, physically, and socially and emotionally - could further enhance student learning and achievement. The NZC also states that as confident learners, students will be positive in their own identity (MOE, 2007, p. 8). It is important, then, to consider how being reflective within this holistic model could also bring about the positive development of a student’s identity.

3.3 – Self-reflection - Emotional and Social

To further enhance student learning and achievement and bring about the positive development of a student’s identity requires reflection on emotions and within social contexts. Our emotional circuits are “sculpted by experience throughout childhood” (Goleman, 2004, p. 27) and “we leave those experiences utterly to chance at our peril … the crucial emotional competencies can indeed be learned and improved upon by children – if we bother to teach them” (Goleman, 2004, p. 34).
A rich body of recent research in neuroscience has demonstrated clearly the “interrelatedness of emotions and cognition and the importance of emotion in rational thought” (Immordino-Yang & Faeth, 2010, p. 82). Immordino-Yang and Faeth illustrate this saying that emotion (conscious or nonconscious) guides cognitive learning, emotional learning shapes future behaviour, it is most effective when relevant to the task, and without emotion learning is impaired (2010).

Because students today are subjected to increasing amounts of stimuli, the brain needs to sift through it so that it only retains that which is most important. The emotionally relevant information is the first to be dealt with and also the most likely to be remembered. Research shows that “we remember for a longer time events that elicit emotion in us” (Wolfe, 2001, p. 106). During each day all students face situations that are emotionally laden. These might be positive emotions, for example feeling confident about completing a task, receiving good feedback from a peer or teacher; or negative emotions, for example having to speak in front of the class, doing a test that is timed or attempting a difficult task. In these situations, emotions have the ability to impede learning or enhance it (Wolfe, 2001). There is a significant amount of research that encourages teachers to consider the effects of students’ emotion in their pedagogy (Immordino & Faeth, 2010; Wolfe, 2001; Palmer, 1993; Pianta, 1999). Actively managing a supportive social and emotional classroom climate, fostering emotional connection to the material to be learnt, and encouraging students to use their own intuitions (incorporating nonconscious emotional signals into knowledge acquisition) are three teacher strategies suggested by Immordino and Faeth (2010). The first two of these strategies are commonly used by teachers, but encouraging students to use their intuitions is a more complex one. Siegel’s research in neuroscience ensures us that this is teachable. He cites Lutz, Dunne and Davidson saying that “many of our core mental processes such as awareness and attention and emotion regulation … should best be conceptualized as trainable skills” (as cited in Siegel, 2007, p. 101).

For example everyone experiences pain during their lives, and if it is allowed this pain keeps coming to mind and affects the way people think and behave. Often emotional pain can express itself as physical pain. Eckhart Tolle discusses the concept of sustained
conscious attention (reflection) in order to not become identified with the pain. For example you can recognise that you feel angry without having to behave angrily. Tolle suggests that this process is “profoundly powerful yet simple. It could be taught to a child, and hopefully one day it will be one of the first things children learn in school. Once you have understood the basic principle of being present as the watcher of what happens inside you – and you understand it by experiencing it – you have at your disposal the most transformational tool” (2011, p. 29).

It is important to note here that reflection is a compassionate state of mind and that the intention is to be kind to oneself rather than beating oneself up (Siegel, D. 2010, p. 34). Siegel continues by saying “with mindsight our standard is honesty and humility, not some false ideal of perfection and invulnerability. We are all human, and seeing our minds clearly helps us to embrace that humanity within one another and ourselves” (Siegel, D. 2010, p. 37).

3.4 – Self-Reflection - Intellectual

Reflecting on our own mental processes is called metacognition – thinking about thinking. Siegel says we can also have meta-awareness, that is awareness of our awareness. He says that “awareness of awareness is one aspect of what we can consider a form of reflection. In this way, mindful awareness involves reflection on the inner nature of life, on the events of the mind that are emerging, moment by moment” (2007, p. 13). In the past our education system has been focused on the acquisition of content knowledge in specific subjects. A positive aspect of the current curriculum is that it has identified the importance of focusing on cultivating the mind within its vision, values and key competencies, and also by including reflection as part of an effective pedagogy. This places responsibility on schools and teachers to nurture student reflection. Because students’ emotions are so much a part of their thinking, it is necessary for them to be able to sit back and observe their emotions as an outsider, enabling the prefrontal cortex to access working memory and creating optimal conditions for learning to take place. This is what Goleman describes as ‘harmonizing head and heart’. It is when the limbic system and neocortex, amygdala and
prefrontal lobes interact well together. This is when emotional intelligence and intellectual ability both rise (2004, p. 29).

For many years psychologists have been studying the brain and developing theories about how it works. Until recently these theories have been based on clinical opinion, but with technological advances such as brain imaging, researchers have been able to see how the brain responds to particular stimuli, providing a scientific basis for what once was largely opinion (Goleman, 2004).

It is useful to have a basic understanding of how emotions interact within the brain. To help illustrate this I have paraphrased Goleman’s explanation of how the brain grew (2004, p. 10-27). The brain stem is the most primitive part of the brain. It is preprogrammed to ensure human survival and is unable to think or learn. An olfactory function was later added to the brain stem and this became the ‘most ancient root of our emotional life’ and was also needed for survival. The next to develop was the limbic area bringing emotions and adding learning and memory to the function of the brain allowing it to make smarter responses to stimuli. Following the cortex (a rudimentary thinking brain) mammals developed a neocortex. This is considerably larger in the human brain than any other species and adds “all that is distinctly human” (Goleman, 2004, p. 11). This is the seat of thought and enables people to think about their feelings. Siegel states that “the neocortex allows for the subtlety and complexity of emotional life, such as the ability to have feelings about our feelings” (Goleman, 2004, p. 12). However the neocortex does not always control emotions especially in crucial matters or when there is an emergency. In these situations the limbic area takes over and the emotions overwhelm the thinking brain. Near the bottom of the limbic area are the two amygdala and the hippocampus. The amygdala is the specialist in emotional matters and “the workings of the amygdala and its interplay with the neocortex are at the heart of emotional intelligence” (Goleman, 2004, p. 16). Goleman cites the work of Le Doux who considers the amygdala to be an ‘emotional sentinel’. The brain receives information through our senses to the thalamus. Le Doux’s research shows that there are two pathways from the thalamus. The first, and quickest, pathway is through the amygdala and the second, and slower, is through the neocortex. The amygdala responds quickly compared to the more considered neocortex, leading to the
emotions taking over rational thought. The hippocampus holds the memory of emotional contexts, the dry facts, while the amygdala holds the emotions that go with those facts, and together these form emotional memories. Goleman suggests that these memories often become outdated and are “faulty guides to the present” – they cause people to recall past experiences due to association of perhaps one key element, and to react according to these (2004, p. 21). Connections between the amygdala and the neocortex are where battles of the head and heart, or between thought and feeling take place. “This circuitry explains why emotion is so crucial to effective thought, both in making wise decisions and in simply allowing us to think clearly” (Goleman, 2004, p. 27).

Goleman (2004) tells us that the key ‘off switch’ for distressing emotion is in the prefrontal cortex. This is where ‘working memory’, the capacity for holding essential facts in mind to complete a task, is situated. Signals of strong emotion such as anxiety and fear can create ‘neural static’ because the limbic area hijacks the neocortex “sabotaging the ability of the prefrontal cortex to maintain working memory” (Goleman, 2004, p. 27). Goleman goes on to say that this is why “continual emotional distress can create deficits in a child’s intellectual abilities, crippling the capacity to learn” (2004, p. 27).

3.5 – Self-Reflection - Spiritual

Being able to reflect spiritually requires the “conscious recognition of a connection that goes beyond our own minds or emotions. It is a realm of human life that is non-judgmental and integrated. It is about belonging and connectedness, meaning and purpose” (Lantieri, 2001, p. 7). Lantieri cites the research of Hay and Nye who suggest that spiritual awareness is a natural predisposition in young children. They suggest that this is because children have an awareness of the here and now (rather than dwelling in the past or future), an awareness of mystery (things that can’t be explained easily), and an intense feeling of what they most value. Often these things are put aside once children start school and there is more emphasis on completing tasks and getting correct answers. “A focus on ‘the basics’ in schools forces a large part of children’s experience aside, especially in the social, emotional and spiritual dimensions of their lives” (Carlsson-Paige, 2001, p. 22). This is particularly so for Māori students for whom spirituality is a central part of who they are,
the “spiritual dimension is an inextricable aspect of (their) identity and culture” (Fraser, 2004, p. 93). To deny this dimension in teaching and learning is to deny most Māori students the core of who they are.

Most first nations peoples tell us that we were born with a spiritual connection to the earth and the land. To reflect spiritually is to consider how we might develop our connections and interactions with the land, with our environment and between the people we rub shoulders with. For most Māori students personal identity comes from their heritage, from the spiritual connections with their ancestors, the social connections with hapu and iwi (Fraser 2004, p. 93) and their intrinsic connection with the land. There is an inherent connection between identity, land and spirituality (Grace, Grace & Potton, 2003). “Throughout history and in most cultures spiritual wisdom was passed on from the elders to the young. It was assumed that those most experienced in living would share essential concepts about the meaning of life through example and precept” (Brendtro & Brokenleg, 2001, p. 45). While this still happens in some cultures and settings, the pace of change and mobility of populations, and busyness of life has meant that many children and grandchildren do not have the contact with each other that would foster this type of relationship. Therefore, to enable students to make these connections and find a sense of place and purpose would contribute to their holistic wellbeing and sense of identity.

For Māori the spiritual connection is wairua. This is related to a physical connection with the earth, to the seasons, to the mind and the body, and to reflection on the interconnectedness of all of these dimensions. The following illustration – ‘A pathway to life’ - helps to explain the dimensions of a Māori holistic approach to wellbeing:

Wairua is the spiritual connection that carries your humanity
During your lifetime here on earth

Wairua is the light that releases you during your time of pouri
Your time of pain and mourning
And being fearful
Wairua is the laughter that tinkles like cymbals of glass
Contagious, it creates ripples
So that even during hardship, joy can be found

Wairua breathes fresh air into tired lungs
Creates new ways of looking at things,
New beginnings and peaceful endings

Wairua melts the hardened heart,
Rejoicing in the simplicity of healing
Clearing your mind of self-doubt
Replenishing your tired body
Wairua is the rhythms and the chords
It is what brings harmony to your inner being
Allowing you to look outside of yourself
To look beyond the here and now.15

This poem illustrates the connections that go beyond our minds and emotions. To reflect spiritually is to consciously recognise these connections and to see things in new ways.

3.6 – Self-Reflection -Physical

Mindful awareness often requires individuals to focus on aspects of bodily function (Siegel, 2007). Mindful breathing requires an awareness of the air as it enters the nose and travels through the chest to the stomach. Mindful listening, seeing, smelling, touching and tasting require reflection through an awareness of the five senses to interpret the physical environment. Mindful movement heightens the awareness of other people’s bodies and where a child’s own body is in relation to other people and things. Siegel refers to these first five senses as bringing information in from the outside world (2007). He introduces a sixth sense of body sensations such as motion, tension, and relaxation of muscles as well as sensations from internal organs – lungs, heart and intestines. Siegel claims that the

15 From Te Arahia: A pathway to life, Resource from Mauri Ora, Kete 1, Open Wananga, 2011.
awareness that comes from these body sensations informs emotions (2007). Once people are aware of what they are feeling in their own bodies a process described as “interoception, interpretation and attribution” enables them to be aware of the feelings of others leading to empathy (Carr et al. 2003, as cited in Siegel, 2007, p. 168).

Culturally based systems of knowledge explain wellbeing from perspectives that are different from scientific knowledge (Durie, 2011). Durie explains that, for Māori, a “longstanding experience with the natural environment provides a framework for understanding the world” (2011, p. 23). This can be seen in a mihi where Māori identity is linked to physical features of land and sea that connect them to a special place (Durie, 2011). It is easy to recall emotions as we remember the sensations of walking barefoot through warm sand or muddy fields, climb trees or mountains, swim in the sea or a river, tend a garden or experience an earthquake. Often our connections to nature cause us to experience deep emotions, for example seeing a vivid sunset or watching a stormy sea. Parker-Roerden describes the reaction of a student who sees an eagle ray soaring through the water. The student commented that “the creature was just so elegant. It’s hard to describe the emotions that come with the picture. But it’s the emotions that make it powerful and different from anything I’ve ever experienced” (2001, p. 57). Parker-Roerden cites David Orr calling this “embodied knowing … a return to being in our bodies, uniting mind, spirit, emotions and our physical selves … a deeper knowledge than intellectual knowing” (2001, p. 57).

Siegel suggests that reflection, the fourth ‘R’ of education, is about developing the prefrontal cortex, which is the ‘neural hub of our humanity’. He identifies three dimensions that are fundamental to this reflection: receptivity, self-observation and reflexivity. Schools can include age-appropriate exercises that focus on these three dimensions, nurturing the capacity of the prefrontal cortex to be open, self-aware and meta-aware. He states that “ultimately these reflective skills harness our prefrontal capacity for executive attention, prosocial behaviour, empathy, and self-regulation” (2007, p. 262). By teaching students to intentionally reflect, that is to be mindfully aware, we are able to enhance their emotional and social engagement and at the same time focus their attention that leads to the prime condition for learning.
There is a growing number of programmes, particularly in The United States and The United Kingdom that are being specifically designed for, and used with, school students and that are based on research in neuroscience. These programmes teach children how to be reflective or mindfully aware. One of these programmes is InnerKids. Susan Kaiser Greenland, co-founder of the InnerKids Foundation, identifies the change in focus in education towards incorporating social and emotional skills alongside academic skills in a balanced way in order to educate the whole child. She talks about the ABCs of learning – attention, balance and compassion - and how these can be fostered through secular mindfulness training enabling children to live balanced lives (2010, p. 18). Kaiser Greenland offers many exercises that can be done with children in a classroom context that encourage children to be mindfully aware (2010). Another example is a programme that has been designed by The Hawn Foundation, based on ‘rigorous research’. The Foundation has produced a curriculum for approximately five to thirteen year olds called ‘MindUP’. This programme “fosters a classroom learning environment where a child’s ability to academically succeed and personally thrive is maximized and directly linked to their overall state of wellbeing”\(^\text{16}\). The MindUP Curriculum resources teachers to help students approach their learning in a calm manner through mindful breathing. This enables the brain to be more receptive and reflective. The curriculum enables students to enhance their reflection by being mindfully aware of what they learn through their senses. These and other programmes will be discussed in greater detail in Chapter Six.

3.7 – New Zealand Curriculum and Identity

The NZC requires students to be “positive in their own identity” (MOE, 2007a, p. 8). Working from the definition in the literature review, identity is an understanding of oneself and the expression of this self to others. It is made up of the natural core essence, along with a personal identity and a social and cultural identity that are both socially constructed.

Personal identity is based on top-down influences. Our mental images of right and wrong, good and bad, preconceived ideas and reactions all contribute to the “organizational

\(^{16}\) Retrieved from thehawnfoundation.org/mindup/ (08.08.14)
structure we call ‘I’” (Siegel, 2007, p. 149). In our social interactions these mental images are played out time and again, tempered by feedback from others, and become part of who we are. Siegel suggests that “these invariant representations have been reinforced by emotional arousal which enhances neuroplasticity. They have also been part of a reentry loop in which we carry out behaviours based on a certain identity, and the world responds in a particular way to us. We then respond back to how others treat us, and that in turn engrains our patterns of processing and solidifies our personal identity even further” (Siegel, 2007, p. 149). He sees this as enslavement – our planning, working memory and attention are automatically and persistently shaped by these top-down influences. By becoming aware of, and reflecting on these influences it is possible to reduce the effect they have on identity enabling people to be less judgmental about themselves and others.

The alternative to top-down influences on our identity is to change our perspective and process our experiences from the bottom up, most easily through our senses. That is being mindful of the first five basic senses and including the sixth sense of bodily sensations, for example mindfully breathing or being aware of the feel of walking along the beach with bare feet. “Mindfulness broadens identity by giving neural access to the direct experience beneath invariant top-down influences. In this way, the trait of mindfulness may disengage the large scale assemblies of top-down layers so that we can ‘simultaneously’ experience ipseity (a deep sense of our core self) alongside personal identity. With such a trait, our previously restrictive personality patterns may become more flexible and, ultimately, transformed… this learned ability does not require disappearing from one’s daily life, but it may require showing up for it in a new way” (Siegel, 2007, p. 157).

Siegel explains that for optimal wellbeing a person needs to form an integrated sense of self across eight domains (Seigel (D), 2010). The first, and the foundation for the other domains, is the integration of consciousness. This is about focusing attention and opening up to perceptions of the external world. The second domain is the horizontal integration of the right and left brain – being able to bring together imagery and holistic thinking with more lateral and logical thinking. Vertical integration brings senses and body sensations into awareness. The fourth, memory integration, works to make memories explicit in order to make new choices about how to live life. Narrative integration helps to make sense of
our own life in a coherent way. State integration enables people to embrace states of being such as closeness and solitude, autonomy and independence as healthy without the need to reject or suppress them. Interpersonal integration understands that people can love and be loved without giving up their own selves. The eighth domain is temporal integration that enables people to live with ease, finding comforting connections in the face of uncertainty. By creating opportunities for students to reflect within these domains teachers would be enhancing their ability to develop an integrated sense of who they are. Mindfulness can clear the way to a coherent life story (Siegel, 2007), as people gain ‘mindsight’ their sense of identity expands (Siegel (D), 2010).

To illustrate this integration that comes from ‘the basic reflective skills of mindsight’ and the expansion of identity as a result, Siegel chooses the term transpiration to “connote the way we ‘trans’ (across) ‘spire’ (breathe), how we breath across the eight domains of integration” (Siegel (D), 2010, p. 256). He suggests that this is how we dissolve our sometimes confining sense of an ‘I’ and become a part of an expanded identity, a ‘we’ larger than even our interpersonal relationships’. This metaphor bears a strong resemblance to the hongi, a Māori ritual practice that symbolises connections. The hongi, between two people, is a touching of nose-to-nose and forehead-to-forehead derived from a whakapapa that celebrates the sharing of a sacred breath of the body and mind.17

This chapter has explored the importance of reflection in a learning context. It discusses both intellectual reflection called metacognition, and a meta-awareness that is brought about by reflecting emotionally, socially, physically and spiritually. Goleman’s explanation of brain development is briefly summarised to illustrate how emotions interact with the brain through reflection. In order to enhance student wellbeing the NZC requires students to have a positive identity. This chapter shows how self-reflection fosters this positive identity.

Through networks of relationships word was spreading. The mindfulness programme in the classrooms had started with learning about the brain, particularly the functions of the prefrontal cortex, the amygdala and the hippocampus. The teachers and students had been exploring how these parts of the brain cause us to think and respond to stress. Each classroom displayed a coloured poster with a picture of the brain and these parts were labeled. Teachers and students learnt that when we are stressed the amygdala reacts by protecting us from danger – and most often there isn’t any. This reaction stops us from being able to use our prefrontal cortex to think clearly. If we stop and take some deep breaths to calm ourselves our prefrontal cortex is able to think about the best way to respond. This provided a shared language for teachers and students to discuss how they were feeling and why they made decisions or responded in particular ways.

While on duty in the playground at morning tea and lunchtimes teachers were hearing conversations between students about what was going on in their brains and the students were using the language they had learnt in the classroom to talk about this. Children were clearly going home and talking to their parents about how their brain worked using this terminology because parents were coming into school and talking to teachers about how their young children knew about how their brains were functioning, and how they could use words like hippocampus and prefrontal cortex in their explanation. Children were establishing a shared language to discuss mindfulness with their parents, leading to interaction between parents and teachers. This shared network of relationships created through the mindfulness sessions and subsequent conversations between teachers and students, students and their parents, and then parents and teachers was forging some strong links for encouraging the children to become resilient.

One older student, who struggled to interact positively with peers even though he desperately wanted to, was asked to meet with the school principal to talk about some

---

18 Siegel, 2007, p. 261
strategies for responding in the playground when things weren’t going well. The principal asked this student what strategies he thought he could use at these times. The student replied that he could try taking some deep breaths before responding. This was one of the two students in the previous two chapters who hadn’t managed to take part in the mindful breathing but had been watching closely.

4.1 – Relationships are Crucial

This exercise is one carried out in a Christchurch primary school. The shared language used in mindfulness teaching provided a natural connecting point for students, students and teachers, and teachers and parents. Building this network of shared relationships is crucial to developing wellbeing in children.

The Cambridge Dictionary of Psychology defines a relationship as a particular type of connection between two or more entities or phenomena. It is a binding, usually continuous association between individuals wherein one has some influence on the feelings or actions of the other (Matsumoto, 2009). The concepts of relationship and connectedness appear to be inextricably linked, with the online Cambridge Dictionary defining a relationship as ‘the way in which two things are connected’ and connectedness as ‘the state of being related to someone or something else’\(^\text{19}\).

While relationship and connectedness are so closely linked together they also both have strong links to resilience. In fact it is difficult to find any talk of resilience that does not include relationships of some form. Martin Seligman, in his book ‘Flourish’, highlights how critical relationships are to wellbeing. He states that “loneliness is such a disabling condition that it compels the belief that the pursuit of relationships is a rock-bottom fundamental to human wellbeing” (2012, p. 21). Daniel Goleman agrees. In his book, ‘Social Intelligence – The new science of human relationships’, Goleman states that good quality relationships are one of the strongest sources of wellbeing (2006, p. 312). This begins from birth through the interaction between parent and baby.

19 dictionary.cambridge.org/dictionary/british – (retrieved 20.8.14)
and continues through the preschool years with interactions between the child and significant others.

This is certainly the case in education where a number of relationships play out. In her book ‘Relationships are the Center of the Universe’, Wilke (2005) suggests that “disconnected kids can’t learn” (p. 3) and “disconnected teachers can’t teach” (p. 7). She recommends that “all educators must become cognizant of how every relationship profoundly affects the world” (2005, p. vii). The National Scientific Council on the Developing Child builds on this stating that “young children experience their world as an environment of relationships, and these relationships affect virtually all aspects of their development” (2004, p. 1). Relationships hold the potential for the ethical and cognitive growth of students (Johnston, 2006).

In schools children have the potential to learn about their connection with themselves. They also connect with teachers and peers, older and younger children, and maybe mentors and coaches. Sir Ken Robinson, international adviser on education, emphasises that one of the key roles of education is to help “connect ourselves with ourselves, and ourselves with each other” (The dalailamacenter, 2011). Siegel agrees, suggesting that “our minds are created within relationships – including the one we have with ourselves” (2010, p. 55).

Another relationship, for which there is a growing movement to develop (Ernst & Theimer, 2011, p. 577) is our connectedness with nature. According to a Māori worldview that “locates people within the context of the natural environment rather than apart from the environment”, this connection is very strong (Durie, 2011, p. 236). This chapter will also explore a child’s connection with the natural environment and how this can encourage wellbeing. Throughout this chapter references will be made to the New Zealand Curriculum and its focus on relationships and connectedness as fundamental to 21st Century learners.

Also key to wellbeing for school children is the relationship between home and school. Wilke cites Bloom who concluded that “because of the vast amount of development
that takes place in the early years of life, school and home environments should be mutually reinforcing for optimum learning to take place” (2005, p. 74). The relationship between home and school will also be explored in this chapter with a view to improving the wellbeing of children.

This chapter will discuss each type of relationship or connection that children have at school and identify how these can become good quality relationships that promote wellbeing in children. As previously identified there is a strong connection between relationships and resilience. This chapter will explore this connection, making links with Doll’s first three protective factors (based on relationships) that contribute to resilience (2012). Finally the chapter will discuss our relationship with the natural environment and the links that can be made with our identity. The connection between relationships and mindfulness will also be explored.

4.2 - Connection with Ourselves

Claiborne and Drewery identify that “to be able to be good friends, good students and good daughters or sons, children need to understand themselves as well as other people” (2010, p. 155). Having self-awareness and some idea of a sense of self enables children to develop into coherent social people (Plummer, 2010). According to Piaget, it is through interactions with others that very young children begin to learn, through emotions, about themselves and others. It is through these relationships with others that children come to know who they are (Claiborne & Drewery, 2010). For example children learn that they are loved and feel a sense of safety and security when they have a healthy relationship with a significant adult, usually a parent. Siegel states that “relationships are woven into the fabric of our interior world” and that “we come to know our own minds through our interaction with others” (2010, p. 63). The National Scientific Council on the Developing Child tells us that “relationships engage children in the human community in ways that help them define who they are, what they can become, and how and why they are important to other people” (2004, p. 1).
The connection we have with ourselves and the relationships we have with each other appear to be inextricably linked, and serve to strengthen each other. Siegel (Siegel, (D), 2010) illustrates this by identifying that “as we grow in our ability to know ourselves, we become receptive to knowing each other” (2010, p. 231) … and “as our relationship develops our sense of self becomes more clear” (2010, p. 258). By helping children to develop their relationships, teachers are also encouraging the children to become more deeply connected with themselves. Or by encouraging children to become more self-aware, teachers are also enabling students to develop more meaningful relationships.

4.3 - Connection between Teachers and Students

‘If I don’t know my students, how can I teach them?’ is the title of a chapter in a book (Johnston, 2006) about caring classroom relationships. This is a pertinent question. The time and assessment pressures in a classroom lead teachers to be focused on the teaching of reading, writing and mathematics and although their importance is not questioned here, the importance of developing relationships between students and teachers also needs to be seen as a priority. Siegel suggests that relationships with teachers are connections that can profoundly shape a child’s sense of self and self-efficacy, and that important findings show that “the beliefs of the teacher in the child’s capacity to learn directly shape the realization of the child’s learning” (2007, p. 260). The NZC states that “students learn best when they feel accepted, when they enjoy positive relationships with their fellow students and teachers” (MOE, 2007a, p. 34). John Hattie’s meta-analysis of what influences student achievement provides evidence of this. Out of 138 influences identified, relationships between teacher and students ranked eleventh with an effect size of 0.72, where 0.4 is the average effect size20. This is supported by another meta-analysis which adds that it is often thought that relationships between teacher and student were more influential for younger students and for girls, however empirical studies did not identify such effects. The analysis also found that the negative effects of teacher and student relationships have a stronger

---

influence than the positive effects (Roorda, Koomen, Spilt & Oort, 2011). This makes it even more critical for teachers to develop positive relationships with their students.

The Ministry of Education’s Māori Education Strategy, ‘Ka Hikitia’, identifies relationships between teachers and students as being key to accelerating success for Māori. It states that “effective teaching and learning depends on the relationship between the teacher and the student” (MOE, 2013, p. 15). Durie also found this when he interviewed young adults, kaumatua and kuia about important factors in their years at school, suggesting that “learning does not occur in a vacuum nor is it indifferent to interpersonal exchanges” (2011, p. 127). Interestingly Hattie identifies in his research that “students, parents and principals see the relationships between teachers and students as having the greatest influence on Māori students’ educational achievement” but goes on to say that this is not identified by teachers themselves (2013, p. 5). It is important that teachers realise the effect and potential of their relationships with students and put a priority on developing these positive relationships as part of the school curriculum.

Another area where the teacher-student relationship is crucial is in mitigating risk. A positive and caring relationship may enable a teacher to identify when a student is experiencing difficulties of any type, and also puts the teacher in a strategic position to help. Pianta highlights that adult-child relationships form, shape and regulate child competence therefore “it is important to understand how relationships with teachers can intersect children’s developmental pathways and can influence the creation of branches toward health” (1999, p. 17).

To encourage a good quality relationship with a student a teacher might take an interest and know about a student’s life outside of school, pause and really listen to what a student is saying by staying in the moment, choose interactions carefully, be interested in what a student does outside of the classroom, act respectfully, and grow trust. These are all mindfulness practices, or dispositions that come from these practices, that teachers can learn and strengthen through regular mindfulness exercises. By modeling these positive relationships with students, teachers enable their students
to see and experience a culture of care. This serves as a scaffold for students to initiate, manage and thrive within their own relationships. Wang, Hertel & Walberg (1997) suggest that “the manner in which students and their educators interact has enormous influence on student learning” (as cited in Crenshaw 2012, p. 357).

Siegel argues that education is a key component to a child’s development in that “the relationships that teachers have with their students and the experiences they provide for them directly shape the neural circuitry of the next generation” (2007, p. 260). He sees teachers as the “neurosculptors of our future” (Siegel, 2007, p. 260).

Johnston suggests that “learning together is embedded in the relationships we develop in our classrooms and our schools” (2006, p. 5). She makes a clear link between relationships and morality in that morality is only a necessity because of our relationships with other people. She goes on to say that “the moral component of schooling is most fundamental in the relationships we develop with our students and, more important, in those we help them develop with one another” (2006, p. 5).

4.4 - Children Connecting with Other Children

The New Zealand Curriculum tells us that “effective teachers foster positive relationships within environments that are caring, inclusive, non-discriminatory, and cohesive” (MOE, 2007a, p. 34). Students need to develop positive relationships with their peers as they work as members of a learning community. The curriculum document highlights that “students who relate well to others are open to new learning and able to take roles in different situations … they are aware of how their words and actions affect others” (MOE, 2007a, p. 12). This enables them to be participators and contributors with “the capacity to contribute appropriately as a group member, to

---

21 Research carried out by Acevedo and Hernandez-Wolfe in Colombia where students had experienced poverty, violence and other social distress and were suffering ongoing secondary stressors found that the development of attuned relationships between the teacher and students was mutually beneficial. Teachers took time to get to know their students and families well and to listen to them with compassion. This benefitted students and enabled them to make academic progress. Seeing the way the students were able to overcome their difficult situations inspired the teachers to become more resilient and more committed to their work. Bernard calls these 'turn-around teachers’ describing the “one-to-one personal and potentially transforming relationships that teachers establish with learners to build resilience” (1991, as cited in Acevedo & Hernandez-Wolfe, 2013, p. 477).
make connections with others and to create opportunities for others in the group” (MOE, 2007a, p. 12). This endorses students’ own sense of belonging. The curriculum subscribes to a social constructivist pedagogy (particularly based on Vygotsky’s theory) that sees students constructing their learning within a framework of social interactions. Here the learning is not only about content but how to develop working relationships with peers. Vygotsky’s theory is seen by some Māori researchers as more relevant than others for Māori students, partly because it offers more space for relational learning (Claiborne & Drewery, 2010).

Children’s ways of relating with their peers can be characterised as either moving toward, moving against, or moving away and often reflect the type of attachment they have experienced with parents (Birch & Ladd, 1996, as cited in Pianta, 1999, p. 61). Pianta states that “peer relations are a core component of adaptation in childhood” (1999, p. 61). If a child is moving away or moving against peers in interactions, possibly due to attachment experiences and relational styles with significant adults, these interactions will need to be regulated and this has implications for the teacher. Peer group interactions also have scope for cooperation and competition (Higgins 2004, as cited in Claiborne & Drewery, 2010). Children need to develop the skills to interpret the most appropriate way to interact in a social setting. The National Scientific Council on the Developing Child suggests that “playing cooperatively, making friends, and sustaining friendships over time are not always easy” however “any child with severely limited peer involvement is at considerable risk for significant adverse developmental consequences” (2004, p. 2). This would suggest that while relationships are difficult, and need to be constantly worked on, they are absolutely necessary for healthy human development.

Positive relationships, those that involve social approval and acceptance with peers, are one of the factors that contribute to resilience in children and are, therefore, vital factors in their wellbeing (Boyden & Mann 2005, p. 14). Positive relationships have the ability to “mitigate the effects of adversity and contribute to a child’s self-esteem” (Boyden & Mann, 2005, p. 8). Boyden and Mann go on to say that “this process may in turn enhance the development of other protective factors, such as a sense of
competence and an ability to form other meaningful relationships, empathize, and feel a sense of belonging” (2005, p. 8). “Not only do supportive relationships with family and non-parental adults help to protect children from negative effects of stressful situations, there is considerable evidence that social support from peers can greatly enhance children’s resilience” (Boyden and Mann, 2005, p. 7).

4.5 - Connection between Home and School

The New Zealand Curriculum informs us that effective teachers foster positive relationships and this includes relationships with the wider school community (MOE, 2007a). Included in the wider school community is the home-school relationship. There is a significant body of research suggesting that home-school relationships make a difference to students’ learning (Stringer & Hourani, 2013; Wanat, 2012). Apart from academic success, positive effects on the social development and wellbeing of the child are frequently cited as outcomes of the home-school relationship (Stringer & Hourani, 2013). It is noted that home-school relationships are “not a unitary construct” (Stringer & Hourani, 2013, p. 152). In fact, Epstein has identified six major categories under which different ways of relating can occur: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the wider community (2001, as cited in Stringer et al. 2013, p. 152). By helping to resource parents, communicating regularly, providing opportunities for parents to volunteer at school, encouraging learning at home, involving parents in decision-making, and integrating the resources that are in the community, schools can foster a closer connection with the home thus enhancing children’s wellbeing. Epstein’s theory suggests that children succeed at higher levels when home, school and community work together to support them (external influence) and when the interpersonal relationships within home, school and community (internal influence) intersect. This is referred to as the “overlapping spheres of influence” (Griffin & Steen, 2010, p. 219). Interestingly, this connection between home and school is not a new idea. Seventy years ago (in 1944) Juckett wrote that “the education of the child continues concurrently in both home and school, and his complete development depends on the close relationship of the two institutions” (p. 92).
It is important to acknowledge that research also identifies barriers that can limit the effectiveness of the home-school relationship such as the level of parent education and family circumstances, conflict in goals, agendas and attitudes, and the use of language (what is actually being said) (Bull, Brooking & Campbell 2008; Hornby, 2011). In order to ensure the wellbeing of all students, it would be worthwhile for schools to explore ways that these can be overcome. Perhaps a more mindful listening to, and relating with each other could go some way to reducing the barriers identified.

There is an innate connection between children, their families and communities and this is strongly acknowledged by Māori. Among the guiding principles of Ka Hikitia – the Māori Education Strategy - is that of productive partnerships. These “start by understanding that Māori children and students are connected to whānau and should not be viewed or treated as separate, isolated or disconnected” (MOE, 2013, p. 17). The partnership is “a two-way relationship” between schools and parents/whānau “leading to and generating shared action, outcomes and solutions” (MOE, 2013, p. 17). Illustrating this partnership, Cavanagh suggests that “a culturally responsive pedagogy that is based on building enduring, respectful relationships is central and critical to establishing and maintaining a culture of care in classrooms and schools” (Cavanagh et al., 2012, p. 446) and that this culture needs to be “co-constructed alongside students and their communities” (Cavanagh et al., 2012, p. 453).

By developing a healthy relationship between the home and the school it is likely that a stronger sense of community can be developed and that children’s wellbeing can be enhanced by the ‘overlapping spheres of influence’ on them.

4.6 - The Connection between Relationships and Resilience

There is a developing research literature on resilience which, when summarised, consistently identifies two qualities as key to promoting resilience. One of these qualities is relationships (Kent, 2012). Resilience is specifically dealt with in Chapter

---

22 The other key quality promoting resilience is self-efficacy.
Five but it needs to be mentioned in this chapter about relationships because of the mutual interdependence of resilience and relationships.

One of three major theories regarding the construction of resilience is based on the Triarchic Framework illustrating that resilience is influenced at three levels. The first level refers to the biology and personality of the child, but both the second and third levels refer to relationships – the cohesion and quality of family relationships, and interaction within a larger social environment including culture, school and community (Zoellner et al., 2014). Zolli and Healy emphasise this need for connectedness stating that “our resilience is rooted in that of the groups and communities in which we live and work” (2012, p. 143). Silverstein warns that “contemporary culture has deprived many of what makes life endurable, a sense of community, a connection to a larger context that gives life meaning and purpose” (1995, as cited in Crenshaw, 2012, p. 315). In order to promote resilience in children schools need to see the building of connections and relationships as a priority. Ginsburg highlights the importance of connections in building resilience. He identifies ‘Seven Cs’ that interact together to build resilience, one of which is ‘connection’ (2011). In the interactive process connection is a result of, and important ingredient in the other six ‘Cs’ – competence, confidence, character, contribution, coping, and control.

Beth Doll (2012) identifies six protective factors that can help insulate children from the negative effects of stress. The first three factors, which Doll highlights as essential, are the three that describe specific relationships. These are the quality of teacher and student relationships, the quality of peer relationships within the classroom, and the quality of collaboration and connectedness between the classroom and student families. Doll sees these as being fundamental to resilience and appears to see them as having more significance than the largely academic factors of self-determination, self-control and self-efficacy. Embedding these factors into daily classroom practices will help children develop resilience.
Professor of psychiatry and child trauma expert, Dr Bruce Perry, suggests that when helping children to process trauma weekly counseling sessions may not be the best option. This is because we tend to process trauma in short chunks of time, when and with whom we want to do it. For this reason Perry comments that “this is why having a dense relational milieu – in other words, having lots of people who care about you – helps you process it … living in a relationally dense setting, with extended family, neighbours, a community of faith and people who know you and who are a little bit psychologically insightful, will make any traumatic experience digestible …” (as cited in Black & Laugesen, 2012, p. 20). Black and Laugesen go on to suggest that by not having these relationships “even moderately traumatic experiences can become overwhelming” (2012, p. 20).

Seligman sums up the connection between relationships and resilience when he suggests that “other people are the best antidote to the downs of life and the single most reliable up” (2011, p. 20).

4.7 - Connection with the Natural Environment and A Māori Worldview of the Significance of Relationships

This longer subtitle (above) was originally going to be covered in two separate titles. However, the more that I read and researched, the more it became obvious that a connection with the natural environment could not be separated from a Māori worldview of relationships; and a Māori worldview of relationships could not be separated from a connection with the natural environment. A healthy relationship with the land is essential as the whakatauki (proverb) reminds us – Whatungarongaro te tangata, toitu te whenua (Mankind will disappear from sight, the land will remain).

There are two important aspects to being connected to the natural environment. One of these is the way it contributes to our sense of identity. Geographical discourse suggests that there is an attachment to place in the shaping of our identities (Easthope, 2009). Ernst and Theimer also acknowledge this attachment, calling it a ‘human-place bonding’, the “emotional bond that develops between an individual and the
environment” (2011, p. 580). They also suggest that human geography discourse refers to a sense of place or “a sense of connection to some part of the non-human natural environment … a belief that the environment is important to us and an important part of who we are” (2011, p. 580).

Mason Durie states that “we are all connected to a wider world; we are not isolated from our natural environment; instead there are close and enduring bonds between people, the land, and the sky, between night and day and between the spiritual and the material” (2011, p. 61). This has particular significance for Māori where “a respectful relationship with all creation is central to the Māori worldview” (O’Connor & Macfarlane, 2002, p. 226). The Ministry for the Environment illustrates the Māori concept of ‘turangawaewae’, which is literally translated as ‘a place for the feet to stand’ (2010). This refers to one place on Planet Earth where an individual can belong and be heard, stand without challenge, where ancestors and children will also stand, and where the person has both rights and responsibilities (2010).

The second important aspect to being connected to the natural environment is the way we interact with it on a daily basis. Stephens identifies that local environments are significant in relation to “children’s developing senses, experiences of their bodies, consciousness of space and time, aesthetic vision, and possibilities for work, play and interactions with adults and other children” (1994, p. 13). Louv (2005) validates this connection between children and the natural world stating that there is a “growing body of research that links our mental, physical, and spiritual health directly to our association with nature”, at the same time pointing out that the bond between children and the natural world is breaking down (as cited in Ernst & Theimer, 2011, p. 577). Ernst and Theimer also identify that there is a growing movement to reconnect children to nature (2011, p. 577). One example of this is ‘Enviroschools’ that works to connect children to nature, to a sense of belonging to the environment and community, according to Māori tradition, earthquakes are caused by the atua (god) Ruaumoko, the youngest son of Ranginui (sky father) and Papatuanuku (earth mother). After they were separated Papa was turned face down so she and Rangi could not see each other’s sorrow. Ruaumoko was either at his mother’s breast or in the womb to keep her company. Ruaumoko’s movements are said to cause earthquakes. (en.wikipedia.org/wiki/Ruaumoko).
and through these connections instill a sense of partnership and responsibility\textsuperscript{24}. Relationship with the land is innate and is crucial to flourishing for Māori (Blissett, 2011) and, I suggest, is crucial to the wellbeing of all children and adults.

Both geography and lineage are strong Māori values (O’Connor & MacFarlane, 2002). Social and cultural structures are based around the interconnectedness and interdependence of people (including ancestors and future children) and the land, and contribute to a collectivist lifestyle (Rochford, 2004). The collectivist lifestyle of indigenous Māori is described as showing “high importance of obligations towards, embeddedness in, and interconnectedness with the whānau (extended family) and the iwi (tribe)” (Durie, 1995; Harrington & Liu, 2002; as cited in Podsiadlowski & Fox, 2011, p. 8). Because of this high commitment to relationship, a Māori lifestyle can be described “in terms of socio-centrism which recognises that in Māori culture, an individual can be understood only in relation to their social and cultural contexts and relationships” (Houkamau & Sibley, 2010, p. 12). The Māori Values Supplement from the Ministry for the Environment identifies this collective identity that can be seen in terms of kinship, but also points out that “Māori values can be seen as essentially collective values, expressed in terms of collective action and responsibility” (2010, p. 269). Blissett identifies that individual success is seen as success of the collective, and that the individual flourishes through being able to contribute to the whānau (2011, p. 10).

By building and maintaining family-like relationships - whakawhānaungatanga, and encouraging unqualified caring for the health and wellbeing of others – manaakitanga, a strength of relationship can be developed that leads to wellbeing (Cavanagh et al., 2012; Macfarlane et al., 2008). Relationships that are interdependent enable flourishing through their collective responsibility.

\textsuperscript{24} \url{www.enviroschools.org.nz/enviroschools-programme} (retrieved 27.8.14).
4.8 - Relationships and Identity

A significant part of the formation of people’s identities is found in relationships; the relationships we have with people as well as the relationship we have with the physical environment.

The development of a personal identity is one of three aspects of identity described by Erikson. Schwartz (2001) identified later theorists (Marcia, Berzonsky, Grotevant, Waterman, Kurtines, Adams and Cote) who expanded on this theory. Common amongst these theorists is the understanding that personal identity is developed through social interaction. In order to come to know ourselves we must ‘be known’ and this can only come through relationships with others (Tait, 2013). One of three dichotomies played out in the formation of identity is that of differentiation and integration. Adams (as cited in Schwartz, 2001) suggests that to differentiate requires asserting oneself as a unique individual while integration entails working through the process of becoming connected to others as part of a larger group. These are key aspects of identity formation (Schwartz, 2001; Bamberg, 2010) and neither can be developed outside of relationship. In order for a ‘self’ to exist there needs to be a presence of ‘others’. Tait suggests that “to be human is to come to know ourselves as we are known and held by others” (2013, p. 7). She cites Gay who suggests that “to the extent that we are free from others, we are alienated from ourselves” (Tait, 2013, p. 7).

Geographical discourse tells us that there is an attachment to ‘place’ in shaping our identities (Easthope, 2009). Easthope explains this stating that “the relationship that people have with their physical environment and the ways in which they understand that relationship through different conceptualizations of place are important aspects of identity construction” (Easthope, 2009, p. 74). Castells agrees suggesting that geography is used as a building material for the construction of identity (1997). Reese cites Buttimer, a social geographer, arguing that location is important to identity in that “people’s sense of both personal and cultural identity is intimately bound up with
place … and that the ‘loss of home’ or ‘losing one’s place’ may often trigger an identity crisis” (2013, p. 17).

In discussing a Māori worldview Cavanagh et al. suggest that a person’s collective identity is based on relationships but is also “strongly defined in association with important ancestors, geographic locations and landscape features” (2012, p. 449). This can be clearly seen in a mihi when an individual introduces her/himself by locating, for example, a marae, a mountain, a river, a hapu, iwi and ancestral line to identify a place and people of belonging.

It is this connectedness to people and place that allows individuals the confidence to venture beyond.

4.9 - Mindfulness and Relationships

Relationships, mind and brain are three mutually influencing aspects in our lives that Siegel refers to as the “triangle of wellbeing” (Siegel (D), 2010, p. 267). Relationships enable people to share energy and information as they connect and communicate with one another (Siegel (D), 2010, p. 267). The prefrontal cortex is the part of the brain that enables the executive functions of thinking, planning, reasoning, problem-solving, decision-making, and impulse control and is referred to as the ‘neural hub of our humanity’ (Siegel, 2007, p. 261). Reflection - the 4th R of education - has the ability to develop the prefrontal cortex - the region of the brain that supports relationships - the 5th R of education. By being reflective (having mindsight) individuals can become aware of the information flow within themselves, and within others through their relationships. Mindsight gives individuals the awareness to learn about others as well as the awareness to know themselves more deeply. Siegel suggests that “our brain is the social organ of the body, and the way human beings have survived thus far has been related to the ways in which we use our minds in social settings” (2007, p. 169). Being more mindfully aware of ourselves, and our relationships with others impacts the way we interact with others. One of the outcomes of mindfulness practices is empathy that leads to the development of positive relationships.
While there is much research providing evidence of the effectiveness of mindfulness practices for adults, empirical research on the effect of mindfulness practices for children is in its infant stages. One study carried out in Canada with nine to twelve year olds showed significant improvements in teacher-rated social and emotional competence, along with attention and concentration (Schonert-Reichl & Lawlor, 2010). Another study was undertaken by the Mental Health Foundation of New Zealand with a group of six to eleven year old students with an interest in replicating findings such as this. Along with the development of other positive attributes the study identified effective conflict resolution and the development of positive relationships as outcomes of an eight-week pilot programme in mindfulness.\(^{25}\)

This chapter has identified the large number of relationships that have the potential to positively influence children as they navigate their daily lives. These relationships have the ability to greatly enhance their resilience. The chapter discusses the importance for children to be connected with themselves and how having a regular mindfulness practice can develop this connection. Caring classroom relationships between teachers and students are discussed, particularly in relation to student self-efficacy, effective pedagogy for Māori students, and enabling teachers to mitigate risk for students. The chapter highlights the significance of children’s positive relationships with peers and how this enables them to construct learning through their social interactions and contributes to their healthy development. The connection between home and school is discussed and, while acknowledging that barriers exist in this area, the chapter identifies the strength of ‘overlapping spheres of influence’ as a child is connected to the wider community. The ability to provide protective factors for children through developing relationships is highlighted. This chapter illustrates the connections between identity, a relationship with the natural environment and the significance of relationships in a Māori worldview.

“Being in touch with our interconnectedness naturally leads us to wiser choices … we are built to be a ‘we’ – and enter a more fulfilling state, perhaps a more natural way of

\(^{25}\) Personal communication with Grant Rix from the Mental Health Foundation of New Zealand (01.05.14)
being, when we connect in meaningful ways with others” (Siegel, 2010, p. 258/9). Mindfulness is a tool that could enable teachers, parents and children to develop interconnected relationships that would improve wellbeing.
I read a research paper by Libby Gawith about the ongoing psychological toll from the Canterbury earthquakes. Libby, who is from the Polytechnic Institute of Technology in Christchurch, interviewed teachers, children and parents about what it was like for them during and after the earthquakes. From these interviews she was able to capture stories of earthquake experiences from one local community. The interviews with teachers, children and parents enabled Libby to relate people’s stories to some of the psychological phases of disaster recovery.

As I read I discovered the story of a teacher who, in the first year after the earthquakes, found her students to be resilient because of the way they had just carried on in the face of such difficulty. This teacher suggested that the students she worked with showed future potential to be ‘really resilient and ... able to deal with a lot of stressful situations’ (p. 399). Libby told the story of one young child in the research who was able to describe his own coping strategy – ‘I was pretty proud of myself because I wasn’t a scaredy cat when I went back to school. On the first day when I came back, I was deep breathing and trying to relax, to make sure I was okay’ (p. 399).

I couldn’t help but think how the use of this mindful strategy proved to be successful for this young boy and how his sense of pride in this was so evident. He now knows one way of coping with something difficult that will work and perhaps his resulting self-efficacy will give him the confidence to use this strategy again and maybe look for other strategies too. I think this teacher was right – if this young boy is an example of the resilience she was referring to then there is definitely future potential for our students to deal with stressful situations. All we need to do is help them build up a collection of effective tools. And teaching mindfulness in our classrooms will allow us to do just that.

---

26 Siegel, 2007, p. 261
The NZC states in its vision that it wants young people to be ‘confident, connected, actively involved and life-long learners’ (MOE, 2007a, p. 8) and rightly acknowledges that in order for this to happen students need to be resilient. To facilitate a useful discussion about resilience it is important to agree on a clear definition and common understanding.

Resilience is a commonly used word and a popular concept, however, when used in general conversation most people are unaware of the complexity of the concept and the variety of interpretations and understandings held by individuals. Even amongst researchers the resilience literature is “diverse and ambiguous” (Kaplan, 2012, p. 48) and there are disparate usages of the term ‘resilience’ (Reyes, Elias, Parker & Rosenblatt 2013, as cited in Kaplan, 2012). The Oxford English Dictionary suggests that it is “the ability of a substance or object to spring back into shape; elasticity”, and “the capacity to recover quickly from difficulties; toughness”. Similarly, the Merriam Webster Dictionary states that it is the ‘capability of a strained body to recover its size and shape after deformation caused especially by compressive stress’ and ‘an ability to recover from, or adjust easily to misfortune or change’. All four of these definitions reflect a rebounding, recovery or return to a previous state (Zoellner & Feeny, 2014, p. 6) and this seems to broadly reflect the definitions in much of the resilience literature (McCubbin, 2001, p. 2). For the purposes of this discussion it would be appropriate to adopt a definition from Garmezy and colleagues describing resilience as ‘a capacity for successful adaptation in the face of hardship’ (Garmezy, 1993, as cited in McCubbin, 2001, p. 3).

The implication in the NZC suggests that its goal is for all students to be resilient, therefore by applying our definition, to have a capacity for successful adaptation in the face of hardship. This need not mean that all students experience hardship, however all children are faced with difficult situations that they must navigate and make sense of. Ginsburg suggests that “if we want our children to experience the world as fully as possible – unfortunately with all its pain and thankfully with all its joy - our goal will have to be resilience … the capacity to rise above difficult circumstances, the trait that
allows us to exist in this less-than-perfect world while moving forward with optimism and confidence …” (2011, p. 4). Clarke and Nicholson tell us that change is a normal part of life and “any change causes a certain amount of turbulence – whether in an individual’s practical circumstances or private emotions – and tests personal resilience” (2010, p. 9).

While all children experience the regular pain and joy of life, unfortunately for some children life is more traumatic. Many children in New Zealand, like those around the world, experience the impact of illness in their family, the death of loved ones, poverty, family violence, natural disaster, divorce of parents or their own poor health. For these children this might mean exposure to a single event, or prolonged exposure to trauma such as the Christchurch earthquakes.

Rather than focusing on the negative outcomes of hardship or trauma, resilience theory focuses on strengths by understanding how to bring about healthy development and good outcomes in spite of trauma and hardship (Masten, 2001, as cited in Zolkoski & Bullock, 2012). Bananno (as cited in Zoellner & Feeny, 2014, p. 6) identifies that there is a difference between recovering from trauma and resilience. He suggests that recovery implies a moderate to severe initial reaction that is followed by a return to healthy functioning, whereas resilience implies that there is little or no initial reaction to trauma and no real change in health and functioning. Researchers in this area would typically see an absence of physical or psychological symptoms as a good outcome of crisis or trauma. However, Kaplan takes this a step further by looking for growth as a good outcome. He cites Schaefer & Moos saying that researchers “usually fail to consider the possibility of a new and better level of adaptation that reflects personal growth rather than a return to the status quo” (1992, as cited in Kaplan, 2012, p. 41). For those coming to terms with traumatic events in their lives Zoellner and Feeny refer to a posttraumatic growth suggesting that there is a “shift toward more optimal functioning … not just recovering previous functioning but ending up with more adaptive functioning and a change in the way an individual views his or her place in the world” (2014, p. 6).
Everyone is born with an innate capacity for resiliency that just needs to be nurtured (Clarke & Nicholson, 2010; Zolkoski, 2012; Ginsburg, 2011). This provides a sound foundation for the vision of the NZC for all students to be resilient. Resilience is not a character trait that is set. It develops through significant events, disasters, threats and challenges that test, and can increase, resilience. Clarke and Nicholson state that “in fact resilience appears to be an aspect of personality so powerfully influenced by experience that the jelly never quite sets; it’s probably never too late to increase your RQ” (2010, p. 17). While everyone is born with an innate capacity for resilience, some need more support than others. It is also possible for a person to be highly resilient in one aspect of life but need higher levels of support in others (Ginsburg, 2011, p. 4). It is important to note in this discussion that resilience always implies the presence of risk (Zolkoski, 2012; McCubbin, 2001). Risk is present for all children in some form, and all children have the capacity to become more resilient.

Having established that there is an innate resilience in every student, that all students have the potential to become more resilient (with differing levels of support and in different aspects of life) and that all students face hardship in some way (some more traumatic than others) it is important to explore how the vision of the NZC can be enacted to build resilient students. School, as part of a student’s community, is identified as playing an important part in promoting resilience given that children spend much of their day at school (Noam & Hermann, 2002, as cited in Zolkoski, 2012).

While there are environmental factors, previously discussed, that put particular children at risk, resilience research identifies protective forces (Ginsburg, 2011) or protective factors (Zolkoski, 2012; Doll, 2012; Zoellner et al., 2014) that, if they are present in sufficient numbers can “insulate children from deleterious effects of risk and make it more likely that they will grow into successful adults” (Doll, 2012, p. 401). By examining these factors researchers have been able to suggest ways to promote adaptive functioning among children. Because resilience is a process these protective factors can be fostered in children and, thus, contribute to the development of their resilience. Resilience is optimised when these protective factors are strengthened in the individual, family and
community (Benzies & Mychasiuk, as cited in Zolkoski, 2012; Stanley, as cited in Claiborne & Drewery, 2010).

5.1 – Enabling Wellbeing by Building Resilience

To understand how resilience is constructed Zoellner and Feeny (2014) discuss three major theories that influence it. They identify that the Triarchic Framework, consisting of three levels, is key to understanding resilience. The first level involves the biology and personality of the child, the second level the cohesion and quality of family relationships, and the third level the interaction with the larger social environment such as the culture, school and community. The Ecological and Transactional perspective sees that these three levels “mutually influence each other across time shaping the pathways of development” (Zoellner & Feeny, 2014, p. 96). The Organisational perspective says that development occurs in a hierarchical manner building on previous experience and competence. Fairbank, Briggs, Appleyard, Greeson & Woods suggest that it is necessary to examine the resources across these levels to understand the processes influencing resilience (as cited in Zoellner & Feeny, 2014). McCubbin points out that there are cultural implications that need to be considered within the concept of resilience, identifying that success in one culture could be seen as failure in another culture (2001).

Resilience is an emergent and broad arena of research and currently there is significant diversity in approaches, perspectives, variables and vocabulary in the literature (McCubbin, 2001). This thesis will focus on the concept of resilience as a process, and work within the context of children in schools. For this reason it is based on the attributes of resilient students and the protective factors as they relate to children, and combines the understandings of a variety of researchers. It also works from the premise that the interaction of risk factors and protective factors can bring about a more adaptive or optimal functioning than previously experienced.

When looking at the factors of resilience there are two categories to consider. There are internal factors that are within the individual such as self-esteem or self-efficacy, and
external factors that are outside of the individual such as family support or community connections (McCubbin, 2001).

There are many internal factors that affect resilience. Clarke and Nicholson suggest that to demonstrate resilience you need a combination of self-esteem (a feeling of self worth) and self-efficacy (a belief in one’s ability to achieve aims, or be effective in their environment). A combination of self-esteem and self-efficacy fosters a strong belief that you can achieve anything that is a reasonable stretch for you if you put your mind to it (2010). Both of these factors are dependent on having a foundation of self-awareness. Kaplan argues that “the most direct route by which personal traits, behaviours, or experiences may influence (self-referent) responses is by immediately becoming objects of self-awareness” (2012, p. 49).

Self-esteem consists of a number of components. It is likely that children will feel good about themselves in some components and not so good in others (Claiborne & Drewery, 2010). According to Clarke & Nicholson self-esteem is built on virtue (moral excellence), being loved, support of family, academic competence, physical attractiveness, gaining others’ approval, outdoing others in competition and being successful (2010). They suggest that to be rounded it is necessary to have a number of these sources of self-esteem. That way, a child is able to take setbacks in one area and still have other components of self-esteem to help promote resilience.

Self-efficacy is based on the belief that a person can be effective in their environment. In order to have this belief it is likely that the person has previously worked within a challenging situation and experienced some success. In this way we see that “self-efficacy breeds self-efficacy” (Clarke & Nicholson, 2010, p. 40). Bandura (1997) suggests that self-efficacy can often be aligned with certain personality types and that it can be developed over time. He identifies four factors that can inspire self-efficacy. The first, and most significant of these, is personal experience. This comes from reviewing, analysing and building confidence from past successes. Bandura argues that “expectations of personal mastery affect both initiation and persistence of coping behavior”, and that those with strong self-efficacy will persist for longer (1997, p. 193).
The second factor, vicarious experience, is less dependable than personal experience but suggests that people can be inspired by what others have achieved and this can strengthen their own self-efficacy enough for them to be prepared to give something a go. The third factor is verbal persuasion. This is widely used because it is easy. Bandura says that “people are led, through suggestion, into believing they can cope successfully with what has overwhelmed them in the past” (1997, p. 198). The final factor that contributes to self-efficacy is how an individual deals with emotional or physiological arousal. It suggests that an individual needs to be able to overcome physical limitations. High arousal usually debilitates performance so individuals are more likely to expect success when they are not beset by aversive arousal than if they are tense (Bandura, 1997, p. 198).

Self-awareness is the foundation of self-efficacy because it enables an individual to analyse their actions, outcomes and emotions and use this in their future performance. Bandura explains this suggesting that “cognitive processes play a prominent role in the acquisition and retention of new behavior patterns” (1997, p. 192).

While self-esteem and self-efficacy are constructed internally, they are produced through a mixture of both internal and external variables. Resilience requires individuals to be mindfully aware of their thoughts and emotions, actions and consequences, as they interact with their environment. It does not occur in isolation, rather “it is an interactive process that requires someone or something to interact with … and is dependent upon context or environment, including our most important relationships” (Kent, 2012, p. 111). Research suggests that resilience has a high positive correlation with emotional intelligence indicating that “you are more likely to be resilient if you are also emotionally intelligent” (Clarke & Nicholson, 2010, p. 71).

Because risk needs to be present for resilience to develop, some measure of stress becomes inevitable for individuals. Although we often see it in a negative light, stress can be a good thing. Ginsburg suggests that it can be the driving force leading to positive achievements or it can become a destructive force that leads towards dangerous behaviours (2011). Resilient students have attributes that help them to turn stress into positive outcomes. While there is a range of vocabulary used by researchers to identify these attributes, the attributes themselves are similar and lead to the
development of either self-esteem or self-efficacy. Resilient students tend to be socially competent, have a history of positive adaptation that leads to a positive attitude towards obstacles or challenges, and flexible problem-solving skills with which to approach them. They also have a critical (moral) consciousness, a sense of autonomy, and a sense of purpose and meaning to life. At the family and community level there is good support and involvement (Fairbank, Briggs, Appleyard-Carmody, Greeson & Woods, 2014; Zolkoski & Bullock, 2012; McCubbin, 2001). Interestingly, helping others is seen as an effective way to encourage responsibility, empathy and self-esteem (Zolkoski & Bullock, 2012). Ginsburg identifies similar attributes and calls them the Seven Crucial Cs – competence, confidence, connection, character, contribution, coping and control. These attributes “interrelate as a web of resilience” (Ginsburg, 2011). There is a high correlation of these attributes with the way the vision of the NZC is expressed. The vision describes students who are confident and connected, developing competencies, making contributions and having control in their learning. It is clearly evident that the NZC sees these as the attributes desired in students to enable them to be successful learners in the 21st Century.

In the large developmental research literature on resilience the two qualities that are replicated with remarkable consistency when describing resilience and positive adaptation are close relationships with one or more adults, and self-efficacy (Kent 2012). By pushing limits and learning from their mistakes resilient people are able to experience increasing success. Ginsburg states that “resilience may be a core factor in determining not only who will adapt, but who will thrive” (2011, p. 4).

Zolli and Healy suggest that “our resilience is rooted in that of the groups and communities in which we live and work” (2012, p. 143). School is the community in which the vast majority of children regularly spend the largest part of their day, and where teachers can have a significant impact on children’s resilience. Goleman sees this opportunity and suggests that there is a number of well-designed interventions that act as buffers, or protective factors, which have largely been run by research psychologists as experiments. He suggests that the next step would be to “take the lessons learned from such highly focused programs and generalize them as a
preventive measure for the entire school population, taught by ordinary teachers” (Goleman, 2004, p. 263). Doll identifies six protective factors that can be deliberately embedded into daily classroom practices to help students develop resilience. The first three are external and are about fostering relationships between student and teacher, among classmates, and a collaboration and connectedness between home and school. The second set of three protective factors are internal and “promote students’ autonomy and self-regulation” (Doll, 2012, p. 401). These are academic self-determination (empowering students to set goals and make their own decisions), academic self-control (supporting students to manage their learning and behaviour), and academic efficacy (fostering optimism and hope by supporting students to feel confident that they will experience success in class) (Doll, 2012, p. 401).

5.2 - Te Whare Tapa Wha and a Māori Worldview

Te Whare Tapa Wha highlights the four different dimensions that contribute to wellbeing. Cowen suggests that there is a common understanding that resilience comes within the broader concept of wellbeing (1991, as cited in Goldstein & Brooks, 2013, p. 4). There is some synergy between Doll’s protective factors, Te Whare Tapa Wha, and a Māori worldview, one of which is emotional and social wellbeing. This highlights the importance of developing relationships to enhance resilience as Doll (2012) suggests. Of Doll’s protective factors the first three are based on relationships. These have been discussed at greater length in the previous chapter but will be recalled in this chapter as they apply to resilience.

The first relationship to be fostered is that between teacher and student. The Ministry of Education’s Education Strategy – Ka Hikitia – places emphasis on the relationship between student and teacher for effective learning. It highlights the Māori concept of ‘ako’ meaning to learn or teach, a mutual or two-way process where the student learns from the teacher and the teacher also learns from the student (MOE, 2013, p. 15). In their drawing together of three pieces of New Zealand research on highly effective teaching Hawk, Cowley, Hill and Sutherland found common themes, the primary theme being the critical importance for Māori (and Pasifika) students of the
relationship between teacher and student (2010). In two of these studies, where interviews with students were involved, students themselves clearly identified the importance of teacher and student relationships (Hawk et al., 2010). Durie supports this when discussing comments from a panel of young adults, kaumatua and kuia about important factors in their years at school. This panel identified relationships with teachers, peers and whānau as critical for learning (2011).

The second relationship that contributes to resilience is amongst peers or classmates. This relationship draws on two concepts from a Māori worldview. One concept is that of whānaungatanga. This is about “learning within and through the contexts of everyday human interaction and learning to take responsibility for supporting and caring for others” (Macfarlane et al., 2008, p. 117). Establishing this type of relationship goes beyond a Western worldview, blurring interpersonal boundaries and requiring people to accept a high level of responsibility for each other’s wellbeing and learning (Macfarlane et al., 2008, p. 118) and a collective responsibility for their contribution to the survival of the group (Macfarlane et al., 2008, p. 107). The other Māori concept that contributes to the relationships within a classroom, and thus the resilience of the students, is manaakitanga—a context of caring relationships. While it is the role of the teacher to establish and model this culture of care in the classroom, it is expected that students take on the responsibility of caring for each other, and helping to teach the less-skilled students (tuakana-teina). This was demonstrated in an ethnographic study carried out by Cavanagh in two schools, one in the USA and the other in New Zealand (as cited in Macfarlane, 2008, p. 116). The concepts of whānaungatanga and manaakitanga have a similar theme, in fact Mead states that there is an inextricable link between them “with a high value placed on manaakitanga and nurturing relationships within Māori society” (2003, cited in Hutchings & Hipkins, 2010, p. 2).

The third relationship contributing to student resilience is the collaboration and connectedness between home and school. This is clearly illustrated as an essential component in the Māori Education Strategy when it states that “education professionals must recognise and value the contribution of whānau, hapu and iwi, and
build connections with them both inside and outside of school” (MOE, 2013, p. 40) and that “productive partnerships are based on mutual respect, understanding and shared aspirations” (MOE, 2013, p. 17).

Macfarlane et al. (2008) have aligned the concepts of whānaungatanga and manaakitanga with key competencies – managing self and relating to others - in the NZC. They comment that while there is commonality between the key competencies and the Māori concepts, their origins in different knowledge and value bases mean that they do not match. Rather than seeing these as areas of conflict they should be viewed as “opportunities for improving and enriching the quality of education for all New Zealanders” (Macfarlane et al., p. 123).

The second group of three protective factors identified by Doll relate to the mental health pillar of Te Whare Tapa Wha. These, discussed above, are academic self-determination, academic self-control and academic efficacy. Cavanagh et al. (2012) highlight the concept of manaakitanga as being a holistic care where the health and wellbeing of others is as important as learning and academic achievement. However the ‘wrap around’ caring of manaakitanga contains elements of both soft caring (kindness and concern) and hard caring (high expectations and accountability) (Gay, 2000, as cited in Cavanagh et al., 2012, p. 451). In research for the Mental Health Foundation Māori individuals and groups were interviewed to gain understanding of their perspectives and definitions of flourishing. The interviews identified that academic self-determination has links with kowhiri, or choice, which was seen as crucial to flourishing. Interviewees suggested that having the ability to make choices and decisions was central to determining their wellbeing (Blissett, 2011). Blissett points out the links here with international literature but identifies a point of difference where Māori would see self-determination in a more political light (2011).

Although “there is a dearth of literature that clearly articulates what flourishing from a Māori worldview would look like” (Blissett, 2011, p. 6), the literature on Māori worldview clearly identifies a protective factor that is not mentioned in general resilience literature. In the research for the Mental Health Foundation above, Māori
Interviewees identified that a secure and positive identity based on an innate relationship with the environment was crucial to flourishing (Blissett, 2011). Blissett cites Durie (2004) saying that “health promotion is about harmonising people with their environments” (2011, p. 7). Interviewees discussed an “energetic charging” when returning to hereditary land; it filled the spirit, gave a sense of belonging and responsibility, a sense of permanence and connection with tupuna, and a feel of familiarity with everything (Blissett, 2011, p. 7). Grace aligns this sense of belonging with the key competency ‘participating and contributing’ in the NZC, identifying it as the Māori concept of whaiwahitanga (2005, as cited in Macfarlane et al., 2008, p. 121). This is a clear illustration of the interconnectedness of the physical and spiritual dimensions of hauora that form Te Whare Tapa Wha. In addition to the walls there is significance in the floor of the whare that represents the dimension of taha whenua, an environmental wellbeing and connection with the land.28 A Māori values supplement from the Ministry for the Environment discusses the concept of Turangawaewae. The literal meaning is ‘a place for the feet to stand’ and refers to the place from which a person comes, incorporating their whakapapa or ancestry. It is a place of belonging and a place to be heard, bringing with it both rights and responsibilities (Ministry for the Environment, 2010, p. 270; Doig, 1989, as cited in O’Connor & Macfarlane, 2002). This sense of identity brings about a solid grounding in people and place providing a strong protective factor that contributes to resilience for Māori. This has the potential to make a strong contribution to protective factors for all students. A World Health Organization declaration acknowledges “the unique spiritual and cultural relationship between indigenous peoples and the physical environment and believes that this relationship provides valuable lessons for the rest of the world” (Rochford, 2004, p. 45).

5.3 - How can Mindfulness Help to Build Resilience?

“Mindfulness supports resilience, the ability to respond constructively to life” (Schoeberlein, 2009, p. 101). Through a process of reflection personal wellbeing can be nurtured. Siegel suggests that “this life-enhancing facility of the mind develops as a

---

skill that promotes flexibility and resilience, within ourselves and within our relationships with others” (2007, p. 259). This aligns with Doll’s six protective factors – the three self-referent processes of determination, control and efficacy, and the essential three factors of relating to others (2012).

Schoeberlein highlights the importance of teaching students how to promote resilience and outlines four ways that resilience can be fed by mindfulness (2009). Firstly, being mindful creates a sensitivity that enables a student to notice challenges, and the sooner a student realises that they are facing something stressful the more time there is to prepare and respond to the challenge. Secondly, mindfulness enables students to develop the skills to calm themselves. This slows down reactions and gives the mind time to think rather than reacting quickly to the emotions that are first to surface. “This is exactly how we unlock mindfulness – by taking what is unconscious and shining the light of consciousness on it” (Altman, 2010, p. 81). Schoeberlein identifies that “this is at the heart of resilience” (2009, p. 104). The third way that mindfulness can enhance resilience is in managing emotional and physical suffering, by learning to notice an experience without fully engaging in it. This is about “directly experiencing comfortable and uncomfortable emotions and sensations as constructively as possible” without denying that they exist (Schoeberlein, 2009, p. 104). Finally, mindfulness provides a support for recovery after facing a challenge, helping a student to move on quickly. Schoerberlein suggests that pain is prolonged by “replaying the past” and this weakens wellbeing by reinforcing suffering. Mindfulness facilitates the shifting of attention to the present rather than the past (2009, p. 105). Some individuals have strong thoughts and feelings of impending danger and these promote hypervigilance and avoidance behaviour. For these individuals mindfulness can help them to “decenter” from the effects or reactions from previous experiences by observing, rather than judging, their thoughts, emotions and body sensations (Semple, Lee, Rosa & Miller, 2010, p. 4). Teasdale states that in the act of decentering “a shift in the mental representations that define an individual’s relationship to their own anxious thoughts, feelings and body sensations” is produced (1999, as cited in Semple et al., 2009, p. 220). Following their randomised trial of mindfulness-based cognitive therapy for children Semple et al. concluded that their research suggested a
“relationship between attention and mindfulness” (2010, p. 227). They identify that because anxiety produces attention-related problems and promotes emotionally reactive behaviours the development of good study skills is impaired. Mindfulness could bring about ‘less anxiety and fewer academic problems’ enhancing student resilience (Semple et al., 2010, p. 227).

The vision, values and key competencies referred to in the NZC demonstrate the importance of developing resilient students. By focusing on developing the protective factors that enhance resilience schools can foster a resilient mindset in students to enable them to “deal more effectively with stress and pressure, to cope with everyday challenges, to bounce back from disappointments, adversity and trauma, to develop clear and realistic goals, to solve problems, to relate comfortably with others, and to treat oneself and others with respect” (Goldstein & Brooks, 2013, p. 3).
Chapter 6
Mindfulness
A Pathway to Wellbeing

After my conversation with a health professional about the possibilities of mindfulness being helpful to the children in my school I began to research the key writers in the area. Searching on the internet I realised that there were other educators out there who were already using mindfulness practices and programmes. This was great news. Amongst the websites I was able to find a curriculum that had been developed for children the same age as the ones I was concerned about and this was available to purchase. I ordered the two books that covered the relevant class levels and a couple of weeks later I was avidly skimming these books and seeing that the suggested sessions would fit our context, would be straightforward to put into practice and looked like they would be fun. I took these books to school to share my discovery with the principal. He was very supportive, quickly seeing the potential for a programme such as this one to help the children at our school regain their self-control and self-regulation when learning and interacting with others, and also to enable them to become more resilient. He offered me one day of release time to write up an implementation plan for the school and time at staff development meetings to get the programme underway and to monitor it. I was to order the relevant curriculum book for each teacher. As far as we were both concerned the sooner we could get underway the better. There was a shared sense that this could be instrumental in helping the wellbeing of our children.

6.1 – Mindfulness Explained

Mindfulness - literally the opposite of mindlessness - is a practice that is fast becoming more popular and widespread throughout the Western world (Ergas, 2014). Jon Kabat-Zinn, attributed as bringing mindfulness into mainstream medicine through his pioneering stress reduction clinic, gives an operational working definition of

29 The MindUP Curriculum – this is discussed in greater detail later in this chapter.
30 See Implementation Plan – Appendix 4.
mindfulness that is widely accepted. He states that mindfulness is “the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment” (2003, p. 145). It is widely understood and accepted\(^{31}\) that mindfulness practices enhance the development of executive functions such as thinking, planning, reasoning, problem-solving, decision-making and impulse control, and prosocial dispositions such as empathy and compassion. When contemplative practices become systematic they induce changes in the function and structure of the brain leading to prosocial behaviour and academic success in young people (Davidson et al., 2012). Walsh identifies a ‘good-news, bad-news’ understanding of the mind, with the bad news suggesting that “our ordinary state of mind is considerably more uncontrolled, underdeveloped, and dysfunctional than we usually recognize, and this results in unnecessary suffering” and the good news is that the mind can be trained and developed “enhancing wellbeing and psychological capacities significantly” (2008, p. 438). Contemplative practices are helpful for ameliorating a range of issues such as stress and psychological and psychosomatic disorders, while also enhancing wellbeing in healthy individuals by fostering latent capacities and accelerating development (Walsh, 2008).

Mindfulness is “nested in” contemplative practice (Ergas, 2013, p. 59). This contemplative practice derives from the human quest for self-understanding and healing dating back thousands of years. The earliest of these quests was the Shamans who learnt how to alter their consciousness through external aids such as fasting, drumming, dancing and psychedelics. The Axial Age, around 2,500 years ago, saw a “dramatic stirring of human consciousness” and the pioneering of new techniques for training the mind arose from Greek philosophers Socrates, Plato and Aristotle, Indian sages and Buddha, and Confucius and Lao Tsu in China (Walsh, 2008, p. 462). These techniques did not require external aids. Contemplative traditions have evolved over time through religions of the East and West and also through the lives of secular contemplatives. Common to all of these is the presence of wise teachers and periods of silence and introspection. Continued refinement has seen each tradition cultivate its own practices for developing mental capacities, cognitive skills and emotions such as

---

\(^{31}\) Walsh, 2008; Kaiser-Greenland, 2010; Siegel, 2007; Davidson et al., 2012; Meiklejohn et al., 2012; Ergas, 2014; Shapiro, 2009; Langer, 1997.
love and compassion (Walsh, 2008). Daniel Siegel suggests that “mindful awareness is a universal goal across human cultures” and that it “creates scientifically recognized enhancements in our physiology, our mental functions, and our personal relationships” (2007, p. xiii) although this has only relatively recently been recognised.

Walsh identifies that, for a long time, Western mental health professionals knew little and misunderstood much about contemplative practices but recently there has been an explosion of both popular and professional interest (2008). Molecular biologist, Jon Kabat-Zinn, introduced mindfulness as a secular practice for stress reduction in 1979. Following reports of healing being experienced by Kabat-Zinn’s patients the mindfulness-based stress reduction practice spread quickly and a number of offshoots were developed including mindfulness-based cognitive therapy and programmes specially designed to help with, for example, eating disorders, childbirth and cancer (Ergas, 2013). Mindfulness practices grew amongst the adult population and many studies were completed to provide evidence of the benefits of such practices. For example, in his mindfulness research update Greeson identified “cutting edge laboratory research … beginning to reveal some of the biological pathways through which mindfulness training may positively affect physical health and healing processes” (2009, p. 14). He highlighted a randomised controlled study that was carried out by Davidson, Kabat-Zinn and others in 2003 to establish the effects on “brain and immune function of a well-known and widely used 8-week clinical training program in mindfulness meditation applied in a work environment with healthy employees” (2003, p. 564). The findings showed that “a short program in mindfulness meditation produces demonstrable effects on brain and immune function” (Davidson et al., 2003, p. 564). Another study, carried out in 2007, was able to identify the neural pathways, using fMRI scanning, that link mindfulness with improved psychological and physical wellbeing (Cresswell, Way, Eisenberger & Lieberman, 2007). In fact “several hundred research studies have demonstrated numerous significant findings of mindfulness-based interventions, including decreases in psychological and physiological pathology” (Shapiro & Carlson, 2009, p. 119) as well as producing “profound effects on positive mental states and human development” (Shapiro &

---

32 Functional magnetic resonance imaging
Carlson, 2009, p.129). Khoury et al. support this finding suggesting that “the effectiveness of mindfulness based interventions for improving mental health and wellbeing in adults is now well documented, with a recent meta-analysis identifying 209 empirical studies with overall effect sizes in the moderate range” (2013, as cited in Zack et al., 2014, p. 45).

Lazar and colleagues used fMRI to ascertain the relationship between meditation experience and increased cortical thickness. Their initial results suggested that “meditation may be associated with structural changes in areas of the brain that are important for sensory, cognitive and emotional processing” (2005, p. 1895). Their data also identified the possibility that age-related declines in cortical structure may be impacted by meditation (2005, p. 1895). Seeking to build on Lazar’s study (focused on cortical thickness), Holzel et al. conducted another fMRI study focused on the concentration of gray matter in the brain. They found that “regular meditation practice is associated with structural differences in regions that are typically activated during meditation” and that the amount of meditation significantly influenced the concentration of gray matter (2008, p. 60).

While research identifying the evidence of the benefits of mindfulness for adults is becoming voluminous, research about mindfulness for youth and children is only in its infancy (Holzel, 2008; Meiklejohn, 2012; Davidson et al., 2012; Zack et al., 2014). This is probably because mindfulness programmes for youth and children have only been developed over the last decade in what Zack et al. describe as a historic pattern of “extending adult treatment downward” (2014, p. 45). They do, however, suggest that there are increasing reasons to argue that mindfulness based approaches are even better suited to children and youth than they are to adults (Zack et al., 2014, p. 48).

Ergas (citing Taylor, 1991, 2006) suggests that the explosion of interest in mindfulness could be attributed to a subjective turn in a postsecular age where the “demarcations between religion, spirituality, and secularity and their relations with education and science become blurred” (2013, p. 59). This blurring has perhaps sponsored a social-educational ethos brought about by the “coming together of natural
scientists, psychologists, politicians, educational researchers, and social activists” (Ergas, 2013, p. 59). This social-educational ethos has the potential to support the focus on the ‘lifelong learner’ espoused in current school curriculums by developing and enhancing the set of mental skills and socio-emotional dispositions that Davidson et al. identify are “central to the aims of education in the 21st century” (2012, p. 146). This potential has also been identified by Siegel, who proposes that the development of healthy relationships with oneself and with others, through mindful awareness, is teachable and an important part of the school experience (2007, p. 259).

6.2 – Mindfulness and Attunement

Siegel argues that attunement is the essence of a healthy relationship and that the first of these attuned relationships is usually between a parent and child (2007, p. 26). Snyder, Shapiro and Treleaven agree stating that “the importance of the early mother-infant relationship on children’s development has been well established in the literature” (2012, p. 709). A healthy relationship between parent and child creates an attunement where “the child’s internal world is seen by the parent and the parent comes to resonate with the child’s state” (Siegel, 2007, p. 27). This causes the child to “feel good, connected and loved” promoting integration where “the long strands of the prefrontal neurons reach out to distant and differentiated areas of the brain and body” (Siegel, 2007, p. 27). It also develops within a child an “‘internal working model’ for how relationships work and how one is to act within them” (Schore, 1994, as cited in Snyder, Shapiro & Treleaven, 2012, p. 710). Siegel and his colleagues propose that this attuned relationship can also be developed within an effective therapeutic relationship between a clinician and patient. Siegel sees the integration through the prefrontal neurons as the “common mechanism beneath various pathways leading to wellbeing” (Siegel, 2007, p. 27).³³

Based on the evidence of neural growth (neuroplasticity) promoted through the interpersonal relationships between parent and child, and clinician and patient, Siegel proposes that the intrapersonal relationship, or attunement, developed through

³³ Quintana & Fuster (1999) and Miller & Cohen (2001) report that a variety of neurons make up the networks that cooperate in the integration of the executive functions of the prefrontal cortex.
mindful awareness “may also promote such neural integration” leading to wellbeing (2007, p. 40). Neural integration forms an interconnectedness of the brain and the body through synaptic linkages in the brain creating a functional coordination and balance – “the mechanism of bodily regulation” and the first of nine functions measuring secure attachment (Siegel, 2007, p. 41).

Drawing on a number of researchers (see Appendix 5) Siegel outlines the nine functions of the prefrontal cortex that are identified as outcomes of secure attachment and also mindful awareness practices. These are the regulation of body systems (monitoring and adjusting the brakes and accelerator of the nervous system), balancing emotions (balancing meaning and vitality with chaos), attuning to others (coordinating input from another mind), modulating fear (unlearning automatic fear responses), responding flexibly (pausing before acting to choose the most appropriate response), exhibiting insight (linking past, present and future), exhibiting empathy (perceiving another person’s signals and imagining what might be going on inside them), being in touch with intuition (our body’s wisdom to process deep ways of knowing), and morality (seeing the bigger picture and considering what is best for the whole rather than the self) (2007, p. 26, 42).

A central view of the literature suggests that developing a theory of mind, that is the ability to attune to and model the mental states of others, requires self-awareness. This awareness of self through attention and reflection largely takes place in the prefrontal lobes (Morin, 2004). It is suggested that school experience needs to focus on the development of the mind (the inner world) alongside the skills and knowledge related to the outer world (Siegel, 2007, p. 259). By teaching the skills of reflection (and as a result developing intrapersonal attunement) a neural pathway is formed to enable wellbeing through the growth of the nine functions of the prefrontal cortex discussed above. For this reason Siegel proposes that reflection should become the fourth ‘R’ of education because it “embeds self-knowing and empathy in the classroom” (2007, p. 259 & 261). This 4th ‘R’ of reflection would provide an education that develops the prefrontal cortex – the region that also supports relationships and resilience considered by Siegel to be the 5th and 6th ‘Rs’ of education (2007, p. 261).
6.3 – Mindfulness in Schools

There are three approaches for integrating mindfulness into the classroom identified by Meiklejohn et al. (2012). The first of these is an indirect approach where the teacher develops a personal mindfulness practice that is brought to the classroom through the attitudes and behaviours of the teacher. The second, a direct approach, involves the teaching of mindfulness exercises and skills to the students. The third approach is a combination of both the personal mindfulness of the teacher and the teaching of mindfulness directly to students. This combination is seen as creating a more sustainable benefit to a school community. Meiklejohn et al. suggest that “nurturing teachers’ inner resilience via mindfulness-based training creates a relational foundation in the classroom for offering students age-appropriate mindful skills that, in turn, appear to nurture their own inner resilience” (2012, p. 304). It would be worthwhile to consider the potential of a fourth approach, where the teacher and students learn about mindfulness together. This might be a useful approach in the Christchurch post-disaster context.

The Garrison Institute CARE (Cultivating Awareness and Resilience in Education) programme, is designed to help teachers develop personal mindfulness resourcing them to help their students to flourish socially, emotionally and academically. A preliminary pilot study carried out three years after the programme started found that “CARE is a promising intervention to support teachers experiencing the emotional stress of working in challenging settings” (Jennings, Snowberg, Coccia & Greenberg 2011, p. 46). The results of this pilot study found that teachers reported greater self-care and empathy for others, they increased their emotional awareness and regulation of emotions, they experienced an improvement in their relationships with students, colleagues and families, and were more mindful of slowing down rather than automatically reacting out of strong emotions (Jennings et al., 2011, p. 42). Two other examples of programmes that provide mindfulness training for teachers are SMART (Stress Management and Relaxation Techniques) which trains participants to meditate,

build emotional awareness, practice movement exercises and engage in reflective
dialogue leading to the development of fair-mindedness, flexibility of thinking and
tolerance for ambiguity\textsuperscript{35}; and MBWE (Mindfulness-based Wellness Education)
which is specifically designed for teachers in training exploring wellness and mindful
teaching strategies (Meiklejohn et al., 2012, p. 294). All three of these programmes
reflect the indirect approach described above as opposed to preparing teachers to
directly teach mindfulness skills to students (Meiklejohn et al., 2012, p. 295).

A growing number of options are available to support the direct teaching of
mindfulness to students across all years of schooling. The literature identifies five
specific programmes that have been established to teach mindfulness to youth and
children\textsuperscript{36} and these are discussed below. Because this thesis is based on primary
school age children the review of each of these programmes will focus on children
rather than youth. Four of these programmes are classroom-based and the other
involves parents and an element of home practice. These programmes will be outlined
and relevant empirical research cited for each.

\section*{6.4 - Mindfulness Programmes}

\subsection*{6.4.1 - The InnerKids Programme}

The ‘InnerKids’ programme, based in the USA and greatly influenced by the work of
key academics and practitioners\textsuperscript{37}, was developed by Susan Kaiser-Greenland\textsuperscript{38} for
children from Pre K to Grade 12. Its focus is on the new ABCs of attention, balance
and compassion which are taught through games, activities, instruction and sharing to
develop awareness of thoughts, emotions and inner sensations (inner experience),
awareness of other people, places and things (outer experience), and an awareness of
both of these together. The sessions begin with breath and sensory awareness activities,
then games are played that heighten awareness of other people’s bodies and where
children’s bodies are in relation to other people and things. Other people’s thoughts,

\textsuperscript{35} (ok-edu.sites.olt.ubc.ca/2013/10/27/improve-your-overall-health-and-body/ retrieved 03.09.14);
\textsuperscript{36} Mental Health Foundation of New Zealand, 2012.
\textsuperscript{37} Jon Kabat-Zinn, Jeffrey Schwartz, Daniel Siegel, Alan Wallace.
\textsuperscript{38} Founder of InnerKids Program affiliated with the Mindful Awareness Research Centre at UCLA.
emotions and worldviews are considered with the intention of promoting kindness to self and others, and patience, generosity and gratitude.  

Research was undertaken in 2010, using an externally valid instrument of measurement (Flook et al., 2010), to evaluate a school-based programme involving 64 children aged seven to nine years in a 30 minute programme delivered twice weekly for eight weeks. This was a randomised control study where teachers and parents responded to questionnaires about children’s executive function both before and after the programme. The research found that “participation in a mindful awareness practices program was associated with improvements in behavioral regulation, metacognition, overall EF (executive function) and specific domains of EF” (Flook et al., 2010, p. 79 [my italics]). Reports from parents paralleled those from teachers suggesting a generalisation of behaviour across both home and school settings. Interestingly, the research found that there was a stronger effect of mindful awareness training on children with executive function difficulties.

### 6.4.2 - Mindful Schools

Mindful Schools has operated in California since 2007. In 2011 they had taught in-school programs to over 11,000 children, and 550 teachers in 41 schools, 71 percent of which serve predominantly at-risk children. The program was established to reduce stress in response to a therapist visiting a school who reported that the children were in ‘tremendous turmoil’.  

The Mindful Schools Elementary Curriculum uses mindfulness to teach children how to pay attention, build empathy and self-awareness, improve self-control and reduce stress (Campbell, 2013, p. 1).

Recent quantitative research based on 937 students and 47 teachers in three public schools found that the Mindful Schools Curriculum produced statistically significant improvements in student behaviour. Teacher ratings showed that students were able to

---


pay more attention, have more self-control, participate more in activities and be more caring and respectful of others (Black & Fernando, 2014, p. 1242).

6.4.3 - Mindfulness in Schools Project

This project, based in the UK, and established by a group of teachers in collaboration with Oxford and Cambridge Universities, saw the development of a ‘.b’ (Stop, Breathe, Be) programme in 2007. This programme caters for secondary school students and its main aim is to use mindfulness exercises to teach young people skills to work with mental states, everyday life and stressors so as to cultivate wellbeing and promote mental health (Kuyken et al., 2013). A recent feasibility study was undertaken to assess the acceptability and efficacy of this intervention to enhance student mental health and wellbeing. The study identified that students experienced increases in self-awareness, self-regulation, self-determination and self-efficacy. The results of this study “provide clear evidence of its acceptability, evidence of its impact on depressive symptoms and promising evidence of its efficacy in reducing stress and enhancing wellbeing” (Kuyken et al., 2013, p. 129). Interestingly, the study also identified that while there were immediate improvements in functioning and wellbeing, greater effects were seen six months after the intervention (Hennelly, 2011, p. 45).

This programme, developed for youth, is discussed in this review because a primary school version of this project (paws.b) is currently being piloted in North Wales for seven to eleven year olds. It is being offered formally as a series of lessons and also informally by integrating mindfulness learning and practice into other curriculum areas and in children’s everyday lives.41 The importance of teacher training and experience in mindfulness is acknowledged on the website.

6.4.4 - MindUP

MindUP is an evidence-based curriculum focusing on fostering social and emotional awareness, wellbeing and academic success through paying mindful attention to self

and others (The Hawn Foundation, 2011, p. 6). It was developed by The Hawn Foundation in the USA and accredited by CASEL (Collaborative for Academic, Social, and Emotional Learning). Based in recent neuroscience research the programme teaches self-regulation and engagement strategies for learning and living.\(^{42}\) The programme consists of 15 lessons that cover how the brain works, the core practice of focused awareness, sharpening senses and movement by being mindful, perspective-taking, attitudes and taking action mindfully. The programme is currently being offered in USA, Canada, the UK, Australia, China and Uganda.

Results of a study evaluating the effectiveness of the MindUP program revealed that “students showed significant increases in optimism from pretest to posttest” (Schonert-Reichl & Lawlor 2010, p. 137). Teacher-rated social and emotional competence also showed significant improvements. The two dimensions of the programme that were specifically targeted (attention and concentration, and social and emotional competence) produced “particularly robust” improvements (Schonert-Reichl & Lawlor, 2010, p. 147). A second study has been carried out to gather information about neuroendocrine regulation\(^{43}\) and executive functions. The results of this second study, including self and peer reports of behaviours where the previous study included teacher ratings\(^{44}\), are still to be published.

**6.4.5 - Mindfulness-Based Stress Reduction for Children (MBSR-C)**

This programme is based on the MBSR programme for adults that proved effective in reducing symptoms of anxiety and depression. The MBSR curriculum for adults was modified to work with (Grade 4-6) children and parents in a school setting. The programme consists of eight sessions with the intention of offering children an experience of the ‘Still Quiet Place’ and a tool to enable them to respond mindfully rather than react automatically to everyday events (Saltzman & Goldin, 2008, p. 143). The first session is an introduction and experience in mindfulness for parents only and,


\(^{43}\) The interaction between the nervous system and the endocrine system regulating the functioning of the human body.

in contrast to the programmes detailed above, there is a formal ‘Home Practice’ element following each session guided by a workbook and CD.

The research for this programme measured attention, emotional reactivity and regulation, anxiety and depression symptoms, and metacognitive functioning targeted because studies had previously shown these domains to be influenced by mindfulness. Information was drawn from child and adult versions of self-report questionnaires and computer-administered cognitive-affective tasks measuring functioning before and after the mindfulness training (Saltzman & Goldin, 2008, p. 154). The research found that children and parents had improved attention skills and experienced less negative emotion in response to physical and social threats. While both children and parents were more compassionate, children were also less judgmental of themselves. Parents experienced less anxiety and symptoms of depression (Saltzman & Goldin, 2008, p. 155). Thus, Saltzman and Goldin suggest that “both children and their parents may improve in attention, emotion, and metacognitive processes following mindfulness training” (2008, p. 156).45 There is not yet research that ascertains whether these improvements are sustained in the longer term.

### 6.5 – Mindfulness Programmes Evaluated

Interestingly, research into the outcomes of these mindfulness programmes identifies two different types of outcomes. Zack, Saekow, Kelly & Radke highlight that while some outcome measures have been ‘symptom reduction’ there is a shift toward “more holistic outcomes such as quality of life” in mindfulness research (2014, p. 47). This mirrors the trend in resilience theory where the focus is on building capacity rather than ameliorating vulnerability, or as Zack et al. suggest “is in keeping with the purported goal of adaptively relating to (often aversive) stimuli, despite the continued presence of psychological distress” (2014, p. 47).

---

45 An adaptation of MBSR, to enhance psychological wellbeing, has also been made for teens (MBSR-T) (Cullen 2011, as cited in Zack, Saekow, Kelly & Radke, 2014, p. 47). Learning to BREATHE is a curriculum also catering for adolescents. Because this thesis is focused on primary school children these programmes will not be discussed.
Currently in many schools, and particularly schools in Christchurch, students appear to have a lack of focus. This lack of focus means that students are unable to settle to a task, a discussion or within a relationship. This could be attributed to stress caused by earthquakes or other difficulties in life, or the busyness of lives generally where each minute of the day is filled with activity. It could also be due to “technology-driven media that bombard children with stimuli devoid of elements that promote self-understanding or compassion” (Siegel, 2007, p. 261). Or it could be that focus is something expected in children but not explicitly taught. Saltzman suggests that “one of the primary ironies of modern education is that we ask students to ‘pay attention’ dozens of times a day, yet we never teach them how” (2012, p. 1). Siegel states that by developing ‘mindsight’ through the practice of reflection children are able to pay attention to enable them to sense the mind in themselves and in others (2007, p. 261).

There are three dimensions of reflection (introduced in Chapter Three) identified by Siegel that he suggests can become a focus of school-based exercises (2007, p. 262). The first – receptivity – requires a student to be open to whatever comes to mind creating flexibility in self-regulation that helps an individual to move away from habitual ways of adapting and reacting. The second dimension is self-observation – approaching the contents of the mind with investigative interest. The third dimension, reflexivity, is the capacity of the mind to know itself or being aware of awareness (2007, p. 127/128). A mindfulness programme such as those discussed above could include opportunities for children to develop these dimensions enabling them to be open, self-aware and meta-aware through breath awareness exercises and activities that encourage investigation of their minds through their senses. Siegel suggests that these reflective skills enhance capacity for executive attention, prosocial behavior, empathy, and self-reflection (2007). As discussed above, fMRI scans have shown increasing cortical thickness and concentration of gray matter in the prefrontal cortex of individuals who meditate regularly, highlighting the potential link between meditation and enhanced executive function.

The reflection brought about by a mindfulness practice has an impact on an individual’s identity. A regular mindfulness practice is able to change our perceptions
of who we are. Contemplative psychologies offer a “dramatically” different view of our sense of self from everyday assumptions, one that serves to broaden our identity (Walsh, 2008, p. 449). As discussed in Chapter Two, everyday assumptions about identity are based on what Siegel calls a “top-down process” where mental images of right and wrong, good and bad, and preconceived ideas and reactions influence identity construction (2007, p. 149). Mindfulness practices foster a bottom-up approach where this “relatively consistent, permanent self-sense … is recognized as a continuously changing flux of thoughts, images and emotions” therefore enabling individuals to see that self-image is only a fabrication and allowing them to disidentify from it and become free of it (Walsh, 2008, p. 449). Contemplative psychologies and some schools of Western psychology and philosophy suggest that “we are not who, or even what, we thought we were” (Walsh, 2008, p. 449). When we talk about our identity we are talking about our self-image or self-concept. Walsh points out that the language of these ideas illustrates that image and concept are mistaken for reality – “we have mistaken a concept for ourself and an image for reality” (2008, p. 449). By practising mindfulness, assumptions about image and concept can be challenged through the bottom-up influences of our senses (Siegel, 2007, p. 151).

The ability of mindfulness practices to broaden our identity can perhaps be understood within a framework of that which is ascribed or constructed (Castells, 2000), and the idea of home and horizon discussed in Chapter Two. Castells’ ascribed dimension of identity could be seen as a biological one where an individual’s ‘people and place’ are given and require little negotiation. This fits with Buttimer’s ‘home’ dimension fulfilling the need for a close and familiar place that provides security. Castells’ constructed part of identity aligns with Buttimer’s ‘horizon’ – a vast and abstract place that encourages adventure. I suggest that our ‘home’, or ‘ascribed’ identity provides the security for an individual to go to the place that encourages adventure – the mindfully reflective place that allows the bottom-up construction of identity. Walsh says that it is in this mindfully reflective place that “the self-concept and its boundaries are then increasingly recognized as constructed rather than given, fluid rather than rigid, and capable of considerable expansion” (2008, p. 449). Ultimately,

Walsh suggests, this leads beyond individual boundaries to a sense of interconnectedness with humankind and the world (2008, p. 449).

The Māori concept of whakawhānaungatanga (the building and maintaining of interconnectedness through enduring relationships) has a clear alignment with Walsh’s idea of an identity constructed through mindful practices. The fluid interpersonal boundaries leading to interconnectedness described by Cavanagh 47 as whakawhaungatanga in Chapter Two are consistent with the ultimate outcomes of mindfulness practices illustrated by Walsh. The respectful relationship with Creation, recognised as important for Māori is also seen in Walsh’s illustration. Te Whare Tapa Wha – the Māori concept of wellbeing - can potentially be seen clearly in mindfulness practices where mental, physical and social health are brought together under the umbrella of spiritual health – the state of being where an individual is able to deal with day-to-day life in a manner which leads to the realisation of one’s full potential, meaning and purpose of life, and happiness from within48.

An overwhelming amount of research literature provides evidence that supports the effectiveness of mindfulness interventions (Davidson et al., 2003; Creswell, 2007; Lutz, Dunne & Davidson, 2007) and this is particularly so for adult programmes. However, there is a growing body of research showing similar outcomes of interventions for youth and children (Saltzman & Goldin, 2008; Schonert-Reichl & Lawlor, 2010; Semple et al., 2009; Zack et al., 2014; Greeson, 2009; Meiklejohn et al., 2012). A search of the literature identifies only a small number of critiques. These critiques are similar in that they do not dispute that mindfulness practices have beneficial effects on wellbeing, but contest aspects of the discourse around mindfulness. For example, the contrast between traditional mindfulness that is oriented around teachings derived from the Buddha, and contemporary mindfulness that draws from a variety of secular traditions leading to a sense of loss when these practices are decontextualised (Monteiro, Musten & Compson, 2014). Two studies identified the problem of language where the understanding of words such as mindfulness and spirituality may change given differing social contexts (Orme-

---

48 See Chapter Two (Dhar et al. 2011).
Johnson, Alexander & Hawkins, 2005; Stanley, 2012). Another study highlighted the community nature of mindfulness in contrast to the more individualistic approach of MBSR, and the tendency to turn mindfulness into a commodity for sale where those who need it may not have access to it (Hickey, 2010). Williams and Kabat-Zinn highlight the difficulty of the interface between first-person experience of mindfulness and the third-person perspective of scientists studying aspects of human experience (2011). The literature consistently identifies the need for more methodologically rigorous empirical studies on the effectiveness of mindfulness practices for children as the popularity of these approaches continues to rise (Burke 2010; Davidson et al, 2012). While the research base is limited by a lack of empirical evidence of the effectiveness of mindfulness practices for children, Burke sees this as illustrative of the early stage of the research. She likens this stage to Phase 1 or 2 clinical research trials where “safety, feasibility and effectiveness take priority over rigorous experimental design” (2010, p. 142).

While critiques of mindfulness practices are difficult to find, Booth, in his article for the Guardian Newspaper49, highlights the ‘booming enthusiasm’ for mindfulness practices and also identifies the possible problems. One of these problems is the lack of trained mindfulness teachers to cater for the increasing demand, and the small amount of training some people have done prior to teaching mindfulness. While this critique largely refers to ‘mindfulness teachers’, it would be wise to heed the concern of appropriate training when equipping schoolteachers to include mindfulness in their teaching. Booth’s second critique comes from ‘troubling side-effects’ identified in the ‘dark night’ project at Brown University in the United States that catalogued some Buddhist meditators as being assailed by traumatic memories. Booth rightly identifies these as rare and most likely to be experienced following ‘prolonged meditation, such as weeks on a silent retreat’. These side effects are not going to be relevant to any school mindfulness practices.

As discussed above, preliminary research is certainly showing the potential benefits of mindful practices for children. It is important that this research is continued beyond

these early stages to develop a solid base for the teaching of non-cognitive skills – the ‘New 3Rs’ – alongside those of reading, writing and arithmetic. This would embrace the intention of the NZC, including effective pedagogy for Māori students and the building of strong student self-identities. Sir Ken Robinson suggests that if the teaching of mindfulness in schools became routine it would help to shape a new culture of education (The Dalailama Center, 2011).
Chapter 7
Conclusion

Early in my research I found a school in New Zealand that was running a mindfulness programme for its students. I believe that this school points the way ahead. Because many of their students have some troubled stuff to deal with in their lives they regularly arrive at school, and continue the day, in a hyper-aroused state. There was a young boy called Sam in one of the classes at this school who, along with his classmates, was learning about mindfulness. Sam was very keen to take part in this programme. He listened avidly and always gave himself fully to the exercises. There is a reason for this. Sam was going through a very tough time having been left with no parent to care for him. Life had become a constant struggle for Sam and he must have experienced in the mindfulness exercises something that helped him to cope with the struggles he faced. Where Sam would normally respond to his struggles by acting out, to the surprise of his teachers, he became able to use the mindfulness exercises he had learnt to calm himself down and reflect on his feelings. This helped Sam to manage these feelings and the way he reacted to them, and so cope with his life each day.

Sam’s classmates were also seeing how mindfulness could help them. They were practising mindful breathing in bed at night to help them get to sleep, and also to turn their ‘excited feelings into calm ones’ as one young student put it. One student likened her mind to a snow globe when it had been shaken up but now she knows how to wait until the snowflakes settle and her mind feels ‘generous and calm’. Another girl likened her calm feeling to sitting on a cloud. She could relate that ‘when I’m upset, I let myself feel sad, and then I can feel happy again’. Mindfulness ‘definitely’ helps another classmate with schoolwork. When the work is hard and he is having trouble keeping focused he knows to use mindfulness to slow his mind down and help him work it out.

Both the teachers and the principal in this school have been impressed by what mindfulness has done for their students, noticing a gradual improvement as the weeks progressed. Students who may have otherwise been referred to counseling have learnt skills to manage themselves by accepting their feelings and working through them. Even the teachers have appreciated the value of the exercises and used mindfulness in
their own lives. These children are keen for other people to learn mindfulness. One young girl says ‘everyone should do it!’

And so they should! It is time to put in place some quality mindfulness practices in our schools that will enable our children to flourish.

Wellbeing is crucial for survival and the bottom line for learning. Wellbeing theory has positive emotion, engagement, meaning, positive relationships and accomplishment as its measures. Seligman suggests that the goal of wellbeing is to increase flourishing by increasing each of these measures (2011, p. 12). It is crucial that we hold tightly to this goal because flourishing children are the measure of a community’s success.

The initial effects and ongoing secondary stressors of the Christchurch earthquakes have had a range of detrimental impacts on local children. We hear this in reports from parents, schools, psychologists, researchers and the media. Because of the large number of children involved the effects have been illustrated more clearly. In smaller numbers, but of no less consequence, children from other parts of the country are having ‘earthquake-like’ experiences in their own difficult living situations.

Currently all is not well with some of New Zealand’s children and, particularly, all is not well with the children of Christchurch. International research informs us that in a disaster children are under-studied and as a result they remain ‘under-served’. It is imperative that we do not under-serve our children; the United Nations Convention on the Rights of the child clearly holds this responsibility in front of us. The intention of this thesis has been to address this under-study of children in a disaster context and to suggest that by using mindfulness as a tool schools would be able to serve children by ameliorating vulnerabilities and building their capabilities.

While it is imperative to do something for the children of Christchurch, it makes sense to do something that can be repeated across the country. It also makes sense for schools to

---

50 Mental Health Foundation of New Zealand. (n.d.). Mindfulness makes real difference in schoolchildren’s lives. This story has been retold from the original source with permission from its author.
take the initiative given that they are the gathering places of almost all children. Similarly it makes sense for schools to foster wellbeing because it is both implicit and explicit in the New Zealand Curriculum. But more than all of these, enabling wellbeing should be the core function of every school.

There is a current urgent need for enhanced wellbeing for Christchurch school students. This requires the establishment of a mindfulness programme that can be quickly operative. Emphasis needs to be placed on equipping teachers to deliver this programme with fidelity, given the limited opportunity for training. There are international resources currently available that could enable this to happen in the short term. A key to the success of a programme such as this would be the establishment of a group of experienced mindfulness practitioners who could lead this development in schools. This could be done through initial setting-up in individual schools and by providing ongoing support to schools.

The vision of The New Zealand Curriculum is for students to become confident, connected, actively involved lifelong learners. This calls for students who are positive in their own identity, resilient, able to relate well with others, members of communities, and who are connected to the land and environment. The NZC specifically stipulates that students become contributors to the wellbeing of New Zealand. Therefore we need to give our children the opportunities to develop their own identities and become resilient, we need to model good relationships, and teach and enable them to relate well with others. We need to foster and strengthen community, and help them to develop a connectedness to the land and the local environment. For students to contribute to the wellbeing of New Zealand they must be well themselves.

The bicultural partnership with Māori has a lot to contribute. Hauora – a Māori philosophy of wellbeing - is built on the four walls of the whare representing mental and emotional health, physical health, social and family health, and spiritual health which is the foundation dimension that the other three are built on. By considering all four of these dimensions of health we can enhance wellbeing in an inclusive way that strengthens both our Māori and Pakeha students.
While there is currently an urgent need for adopting an initial mindfulness programme for Christchurch students, it is essential to look towards a more long term goal that would see skilled professionals in health and education develop a mindfulness curriculum specifically for Aotearoa New Zealand schools. The fit between mindfulness and a Māori worldview is clearly evident and makes mindfulness particularly appropriate for New Zealand schools. It is crucial that the bicultural foundations of New Zealand, and the New Zealand Curriculum in its content and pedagogy, are reflected in those who make up the development group. The introduction of this local curriculum would need to include professional development for teachers and be introduced into initial teacher education.⁵¹

To encourage wellbeing we also need to foster a connectedness to the land. Connectedness to the land and environment is central to identity for Māori and is becoming increasingly so for Pakeha as they look for a place to call home that provides security and stability in a liquid world. Young children are naturally predisposed to spiritual awareness – their belonging and their connectedness. They tend to live more in the here and now, have an awareness of mystery, and have an intense feeling of what they most value. One of the important aspects of a child’s connectedness to the environment is the attachment to a particular place that helps to shape their identity. The other aspect is the way a child interacts with their environment on a daily basis. A growing body of research links wellbeing directly with a child’s association with nature, however this comes at a time when the bond between children and nature is breaking down⁵². Teaching and learning that fosters this connectedness would serve our children well.

A mindfulness programme would sit well alongside a place-based pedagogy. Programmes such as Enviroschools could form part of a mindfulness curriculum. This would encourage children to become more mindfully grounded in their own environment by physically experiencing the world around them.

⁵¹ A similar recommendation is also made by Grant Rix in his paper ‘Mindfulness in Education: Evidence base and implications for Aotearoa New Zealand’ for the Mental Health Foundation of New Zealand, 2012.
Introducing mindfulness practices into schools has the potential to enhance wellbeing and therefore enable our children to flourish. Mindfulness would enable children to become aware by reflecting on their thoughts, feelings and actions. Encouraging reflective thought and action is identified in the NZC as an effective pedagogy for promoting student learning. Currently there is little guidance for teachers about how to teach the skills of reflection, however, mindfulness provides a tool that would enable teachers to scaffold this reflection for their students. Siegel refers to reflection as the ‘4th R’ of education (2007). It would enable students to identify and manage distressing emotion thus allowing the executive functions of the prefrontal cortex to operate. Emotional and social engagement would be enhanced and attention could then be focused on learning. Being reflective would encourage children to develop their identities by processing experiences through their senses rather than developing an identity through a judgmental approach based on who children and others think they should be, and then becoming enslaved to this identity.

Accommodations need to be made for equipping schools to deliver any of the three approaches available for integrating mindfulness into the classroom; the indirect approach through the development of mindfulness practices for teachers, the direct approach by teaching mindfulness exercises and skills to students, and the combined approach which is a combination of the indirect and direct approaches. There is, perhaps, the possibility of a fourth approach where teachers and students develop mindfulness practices together. This would be particularly suitable in the Christchurch context and would be likely to create a more sustainable benefit to a school community.

It is crucial that the introduction of a mindfulness curriculum does not create an unmanageable workload for teachers. Extra stress on teachers should not be the outcome of a mindfulness curriculum. This is particularly the case in Christchurch where teachers are tired themselves as a result of the way the earthquakes have affected their personal lives, and as a result of the responsibility of looking after stressed and tired students, interacting with stressed and tired parents, working in broken school buildings and, for many, accompanying colleagues, students and parents through school mergers and closures.
By developing the ability to be reflective children would be supported into positive relationships (the 5th R of education) that are crucial to wellbeing. Both teaching and learning require teachers and learners to be connected. This relationship must be modeled by the teacher and requires the teacher to scaffold the reflection helping student relationships to flourish. Through mindful reflection students can become more self-aware enabling each to have a greater understanding of the other, and at the same time, come to better know their own minds through interaction with others. This reflection involves fostering students’ connections with themselves and the connections they make with teachers and other students.

Children’s wellbeing is dependent on the relationship between school and home, and the wider community. By building healthy relationships in these areas children’s wellbeing can be enhanced through Epstein’s overlapping spheres of influence. A healthy relationship between school and home would benefit from good communication about the establishment of mindfulness programmes in the school. Any approaches to incorporating mindfulness in schools are likely to be enhanced by offering a component of the mindfulness programme for parents, or at least an understanding of it so that they can encourage their children in mindful endeavours. Gluckman (2011b) has identified that programmes that simultaneously address children and their parents are particularly effective.

Children’s wellbeing is linked to their connection with nature. Reflecting mindfully encourages a child to notice and experience the world around them through their senses. It encourages them to mindfully explore their relationship with the local environment in which they live, metaphorically and literally grounding them in their local community and contributing to their sense of identity. By being reflective children can become aware of the information flow within themselves and within others through their relationships, enabling them to learn more about others and, in turn, coming to know themselves more deeply.
Having good relationships is one of two key qualities that promote resilience (the 6th R of education). Mindful reflection and mindful practices support the development of both relationships and resilience. There is an innate resilience in every student and all students have the potential to become more resilient. The development of resilience is an ongoing process based on internal factors such as individual self-esteem and self-efficacy, and external factors such as family support and connectedness with the community. Both self-esteem and self-efficacy depend on having a foundation of self-awareness that can be fostered through mindfulness practices.

Resilience requires children to be aware of their thoughts and emotions, actions and consequences, as they interact with their environment. Because stress can be the driving force towards positive achievements or a destructive force leading to dangerous behaviours it is imperative to develop in children the attributes required to turn stress into positive outcomes. By establishing mindfulness practices in schools self-esteem and self-efficacy can be fostered and deeper connections with others can be developed. When fostering resilience mindfulness enables students to notice challenges, develop the skills to calm themselves, notice an experience or emotion without fully engaging in it, and enables them to move on quickly after facing a challenge. This will grow the resilience of our children and enable more adaptive functioning when they are faced with difficulties or disasters.

Two key competencies in the NZC, managing self and relating to others, are important contributors to resilience. Māori concepts of whānaungatanga and manaakitanga contribute to a broadening of these key competencies. They closely resemble the intentions of mindfulness practices by encouraging “learning within and through the contexts of everyday human interaction and learning to take responsibility for supporting and caring for others” (Macfarlane et al., 2008, p. 117). It is clear that there are strong connections between mindfulness, Māori understandings of wellbeing, and the requirements of the NZC.

The practice of mindfulness has passed the test of time and is progressively being used in Western health contexts. It is now well documented that mindfulness practices improve
the mental health and wellbeing of adults. An explosion of interest has recently seen the introduction of mindfulness programmes into both primary and secondary schools in a number of countries, and the beginnings of interest in New Zealand schools. Research into the efficacy of mindfulness practices for youth and children is in its infancy but initial studies have shown improved attention and concentration, more self-control, more caring and respectful relationships, less self-judgment and an overall improvement in executive function. It has been suggested that there are increasing reasons to argue that mindfulness-based approaches are even better suited to children and youth than they are to adults. If mindful practices are able to produce these outcomes then they would enhance wellbeing and, therefore, serve our children well.

Mikaere-Wallis is concerned that the number of children with learning issues will continue to increase because the Christchurch earthquakes have exposed a greater number of children to a high-stress situation, suggesting that schools will need to increase their level of support for students from next year (Law, 2014). Schools that teach mindful awareness would be well set up to enhance the wellbeing of this increasing number of young children.

The experiences of childhood have a major impact on adolescent outcomes (Gluckman, 2011b). Gluckman identifies that New Zealand already experiences high levels of youth depression and suicide. Without widespread intervention, particularly in Christchurch given the exposure of so many young people to high-stress situations, this level may be set to rise. Prevention and intervention strategies such as the teaching and development of non-cognitive skills applied early in life would be more effective than later interventions targeting impulsivity and antisocial behaviour for our adolescents (Gluckman, 2011b). Teaching mindfulness has the potential to develop these important non-cognitive skills alongside the more obvious cognitive skills.

Gluckman, in his report to the Prime Minister about improving the transition from adolescent to adult, outlines the New Zealand paradox: ‘New Zealand is a temperate, peaceful, ethical, and developed nation in which children should flourish, yet it is actually
one in which they experience some of the highest rates of adolescent morbidity and mortality in the OECD’ (2011b, p. 54).

The use of mindfulness practices as a tool to improving non-cognitive skills in children by helping them to be reflective, become relational, and build resilience, might not only enhance wellbeing during their primary school years but could potentially contribute to the flourishing that would see New Zealand’s rates of adolescent morbidity and mortality decrease.

Greeson states that ‘finally, research is beginning to prove what mindfulness practitioners have known for centuries – that greater attention, awareness, acceptance, and compassion can facilitate more flexible, adaptive responses to stress, which, in turn, can help free us from suffering and realize greater health and wellbeing’ (2009, p. 15).

This thesis has discussed the ongoing effects of the earthquakes on children in Christchurch. It has identified the learning and behavioural difficulties that have become evident in an increasing number of students. It has also cautioned that students who appear to be resilient may be just managing. The assumption of resilience has a significant impact on the wellbeing of many Christchurch children, and research has been identified showing that in disaster contexts it is likely that children are under-served. This thesis has suggested that because of the scale of need, schools are the best place to introduce practices that will foster wellbeing. Mindfulness practices have been identified as a potential tool for ameliorating the vulnerabilities experienced by children, while at the same time working to increase their capabilities. This thesis argues that, through mindful practices, children can learn to be more reflective of their emotions and respond in a more considered way in different situations. Mindful practices enable children to become more relational, and to have a greater understanding of others through a deeper understanding of themselves. Mindful practices enable children to build resilience by developing the protective factors that promote more adaptive functioning.

This thesis illustrates the synergy that mindfulness has with the intentions of the New Zealand Curriculum for 21st Century learners, and with the holistic wellbeing expressed...
through Te Whare Tapa Wha and a Māori worldview. It sees the commonalities shared by the concepts of identity, a Māori worldview and the New Zealand Curriculum, and argues that mindfulness sits at the intersection as a means of enhancing the wellbeing of children in a way that is particularly relevant for Aotearoa New Zealand.

The Terra is no longer Firma. There is a growing need to serve our children well as they negotiate their new normal. By establishing mindful practices schools can help children to become reflective, relational and resilient learners. An education of this sort is summed up in this quote from Parker Palmer.

Parker Palmer describes what he calls a ‘deeply ethical education’ as one that helps students develop capacity for connectedness (1993, p. xix). He suggests that “such an education would root ethics in its true and only ground, in the spiritual insight that beyond the broken surface of our lives there is a ‘hidden wholeness’ on which all life depends” and that “in such an education, intellect and spirit would be one, teachers and learners and subjects would be in vital community with one another, and a world in need of healing would be well served” (Palmer, 1993, p. xix).
Appendix 1. Description of earthquake effects by Mercalli and Richter Scales

<table>
<thead>
<tr>
<th>Richter</th>
<th>Mercalli</th>
<th>Earthquake Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I</td>
<td>Instrumental. Not felt except by a very few under especially favourable conditions detected mostly by seismography.</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>Feeble. Felt only by a few persons at rest, especially on upper floors of buildings.</td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>Slight. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck.</td>
</tr>
<tr>
<td>3</td>
<td>IV</td>
<td>Moderate. Felt indoors by many, outdoors by few during the day. At night, some awakening. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like a heavy truck striking building. Standing motor cars rock noticeably.</td>
</tr>
<tr>
<td>4</td>
<td>V</td>
<td>Rather Strong. Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.</td>
</tr>
<tr>
<td></td>
<td>VI</td>
<td>Strong. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.</td>
</tr>
<tr>
<td>5</td>
<td>VII</td>
<td>Very Strong. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in ordinary structures; considerable damage in poorly built or badly designed structures.</td>
</tr>
<tr>
<td>6</td>
<td>VIII</td>
<td>Destructive. Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of factory stacks, columns, monuments, walls. Heavy furniture overturned.</td>
</tr>
<tr>
<td>7</td>
<td>IX</td>
<td>Ruinous. Damage considerable in specially designed structures; well designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>Disastrous. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bend greatly.</td>
</tr>
<tr>
<td>8</td>
<td>XI</td>
<td>Very Disastrous. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bend greatly.</td>
</tr>
<tr>
<td></td>
<td>XII</td>
<td>Catastrophic. Damage total. Lines of sight and level are distorted. Objects thrown into the air.</td>
</tr>
</tbody>
</table>

Appendix 2. New Zealand Curriculum Overview

Overview
A schematic view of this document

The New Zealand Curriculum

Directions for Learning

Vision
Young people who will be confident, connected, actively involved, lifelong learners.

Values
- Excellence; Innovation, inquiry, and curiosity;
- Diversity;
- Equity;
- Community and participation;
- Ecological sustainability;
- Integrity;
- Respect.

Key Competencies
- Thinking;
- Using language, symbols, and texts;
- Managing self;
- Relating to others;
- Participating and contributing.

Learning Areas
- English;
- The arts;
- Health and physical education;
- Learning languages;
- Mathematics and statistics;
- Science;
- Social sciences;
- Technology;
- Official languages.

Principles
- High expectations;
- Treaty of Waitangi;
- Cultural diversity;
- Inclusion;
- Learning to learn;
- Community engagement;
- Coherence;
- Future focus.

Achievement Objectives

The School Curriculum

Guidance

Purpose and Scope
Page 6

Effective Pedagogy
Pages 36–36
(For Assessment, see pages 37–40.)

The School Curriculum: Design and Review
Pages 37–62
Appendix 3. Image illustrating the interconnection between Te Whare Tapa Wha and a Māori worldview, Identity, the New Zealand Curriculum, and Mindfulness.

Mindfulness at the intersection of Te Whare Tapa Wha and a Maori Worldview, self-identity, and the New Zealand Curriculum
Appendix 4. School Implementation Plan for Mindfulness

MindUP Implementation Plan Terms 3 and 4, 2013

About the programme:
MindUP is a comprehensive curriculum framed around 15 lessons that foster social and emotional awareness, enhance psychological wellbeing, and promote academic success. The programme promotes and develops mindful attention to oneself and others, tolerance of differences, and the capacity of each member of the community to grow as a person and as a learner. Students learn about the brain and how it functions, in the process gaining insight into their own minds and behaviours as well as those of the people around them. It is informed by current research in developmental cognitive neuroscience and other related fields.

Rationale:
Teachers and support staff have observed a change in students’ attitudes, attention and interactions over the last 12 months. Initially, after the earthquakes, students were focused, related well with others and showed resilience. We are currently seeing a widespread lack of focused attention, inability to listen to others and take turns in a discussion, and a lack of tolerance for others. Our students are moving houses, moving schools, losing friends and a sense of community, living with stresses at home, watching houses around them being pulled down, and living with constant change including the merger of Burwood School with Windsor School. In ‘communities of turmoil’, children often cope with several problems at once, and suffer from chronic stress – with consequences that can be disastrous for their learning and their lives (Teacher Handbook Page 7). MindUP claims to address these obstacles to productive learning and living by offering insights and tools for self-management and self-possession.

Goals:
• Improve student self-control and self-regulation skills
• Strengthen students’ resiliency and mindful decision-making
• Develop students’ positive social skills, such as empathy, compassion, patience and generosity
• Reduce conflict between peers
• Establish calm and cohesive classrooms
<table>
<thead>
<tr>
<th>What will be done</th>
<th>How this will be done</th>
<th>Who will do this</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection of resources and distribution to teachers</td>
<td>Order teacher handbooks – one handbook for each teacher. Suggested books for use in classrooms sourced</td>
<td>Sandra</td>
<td>Books are ordered and delivery is expected by 26 Aug. These have been requested from National Library.</td>
</tr>
<tr>
<td>Professional development for teachers</td>
<td>Staff meeting to introduce the programme, to look at the research behind it, and to familiarise teachers with Unit 1.</td>
<td>Sandra</td>
<td>Staff meeting on Tuesday 13 August 3.15 – 4.30pm.</td>
</tr>
<tr>
<td>Teachers to introduce the programme to classes</td>
<td>Teachers work through Unit 1, which comprises the first 3 lessons, with classes. Work through the lessons sequentially but select the parts of each lesson to be covered.</td>
<td>All classroom teachers except those who are currently doing the ‘Friends for Life’ programme.</td>
<td>By Wednesday 28 August.</td>
</tr>
<tr>
<td>Staff feedback session</td>
<td>Teachers meet to evaluate the first unit and give feedback on student responses to the programme, positives and difficulties experienced, and share ideas and reflections. Introduce Unit 2.</td>
<td>Sandra, with feedback from teachers.</td>
<td>Staff meeting Wednesday 28 August ?? 3.15 – 4pm</td>
</tr>
<tr>
<td>Teachers to continue programme in classrooms</td>
<td>Teachers work through the beginning of Unit 2, comprising Lessons 4-6. Work through the lessons sequentially but select the parts of each lesson to be covered.</td>
<td>All classroom teachers except those who are currently doing the ‘Friends for Life’ programme.</td>
<td>By Tuesday 17 September</td>
</tr>
<tr>
<td>Staff feedback session</td>
<td>Teachers meet to evaluate the beginning of the second</td>
<td>Sandra, with feedback from</td>
<td>Tuesday 17 September</td>
</tr>
</tbody>
</table>
unit and give feedback on student responses to the programme, positives and difficulties experienced, and share ideas and reflections. Implications for the continuation of Unit 2. Record anecdotal evidence of goals.

<table>
<thead>
<tr>
<th>What will be done</th>
<th>How this will be done</th>
<th>Who will do this</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source the recommended books</td>
<td>Order required books from National Library.</td>
<td>Sandra</td>
<td>Ready for beginning of Term 4.</td>
</tr>
<tr>
<td>Teachers to continue programme in classrooms</td>
<td>Teachers work through second half of Unit 2, comprising Lessons 7-9. Work through the lessons sequentially but select the parts of each lesson to be covered.</td>
<td>Classroom teachers involved.</td>
<td>By Thursday 31 October.</td>
</tr>
<tr>
<td>Review programme to this stage.</td>
<td>Staff meeting. Record anecdotal evidence of goals achieved. Determine implementation plan until the end of the year.</td>
<td>Sandra</td>
<td>Tuesday 12 or Wednesday 13 November??</td>
</tr>
</tbody>
</table>
Publication removed due to copyright restrictions

Appendix 6. Karakia sung by the Te Arawa people after felling a tree trunk for the hull of their canoe.

King of the forest birds  
Chief of the parakeets,  
Hear my prayer!  
Cut away the base of this tree  
And leave it here.  
Cut away the crown of this tree  
And leave it here.  
’Tis said that the ceremonial oven of Te Tuhi  
Did not concern the learned ones,  
Nor those versed in ancient knowledge.  
I have struck this tree  
With mallet and chisel;  
I have struck it with the axe  
Of the Sounding Seas.
I have mounted up on the great  
Foaming girdle of the sea-god Tangaroa,  
The waves beaten down by the canoe Nukutaimaroro.
O Nukutaimaroro I am as Hinetuahoanga,  
Searching for the descendants of Rata  
Slain at the river Pikopiko i whiti.  
O ancient ones, O Nuku, return and aid me  
On this our sacred day!  
Proceed! And glide along!  
Come hither the axe!  
Our work is over!

References


Lewis, J., Kelman, I., & Lewis, S. (2011). Is “fear itself” the only thing we have to fear? Explorations of psychology in perceptions of the vulnerability of others. *Australian Journal of Disaster and Trauma Studies, 3*, 89-103.


The Dalailama Center (2011, November 2). Sir Ken Robinson: Educating the heart and mind [video file]. Retrieved from https://www.youtube.com/watch?v=l1A40GiVK30


