Primary teachers' knowledge, beliefs and perspectives on the practice of mindfulness in schools

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Abstract

Youth mental health and wellbeing is a complex issue which requires prevention strategies from early childhood through entry into adulthood. Schools are well positioned to promote and develop student's overall capacity for wellbeing and have a responsibility to do so. Mindfulness has been identified as a potential practice to support the development of wellbeing and human flourishing in both clinical and non-clinical settings. There is an increasing body of research which has found mindfulness-based interventions to have positive effects on human wellbeing and academic achievement as well. Mindfulness practice also develops an attitude of acceptance which fosters equanimity, creating space for reflection and perspective taking; allowing for self-acceptance and greater awareness of self and others. Increasingly mindfulness skills and capabilities are being fostered through mindful-based programs designed for school curriculums.

The aim of this study was to gain a greater understanding of primary teachers' knowledge, beliefs and perspectives about mindfulness in schools. Specifically, this study aimed to capture primary teachers' views who have not yet been involved in the training or implementation of a formal mindfulness school based program. Placed within a constructivist epistemology this study included 45 participants (n=45) who completed an online survey. The survey was designed using mixed-method research methodology to gather teacher perspectives. Results revealed most primary teachers in this study were prepared to implement mindfulness in schools, and believed schools should be providing mindfulness programs. The results of this study indicate that the implementation of mindfulness in schools is both supported by teachers and viewed as feasible to implement in primary settings. Teachers understood some of the ways in which mindfulness promotes and develops valuable life skills for students in relation to improving their mental health, building individual capacity for coping, and being resilient, and improving student's overall well-being. Implications for schools and teachers interested in beginning a mindfulness programme at primary school are discussed.

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Chapter 1: Introduction

Overview

In recent years there has been an increased interest in the practice of mindfulness and its potential benefits and applications evidenced in the increased number of research studies, books, programs and the testing of mindfulness programs in schools (Ancona & Mendelson, 2014; Dariotis et al., 2016; Semple, Droutman, & Reid, 2017; Semple, Lee, Rosa, & Miller, 2010; Waters, Barsky, Ridd, & Allen, 2015). This research study explored teachers' knowledge, beliefs and perspectives about mindfulness in schools. The study investigated what primary teachers already knew about mindfulness prior to being involved with any training or implementation of a formal mindfulness program in a school setting. This study also looked at which classroom behaviours teachers valued, and which of those behaviours they believed mindfulness cultivated. The supporting factors, potential barriers and the feasibility for primary teachers implementing a mindfulness program, were also explored.

The study was conducted using an online survey, employing both quantitative and qualitative data for gaining a greater understanding of 45 primary teachers' perspectives, across three selected regions within New Zealand (NZ) including: Canterbury, Taranaki, and Waikato. Data analyses included descriptive statistics (e.g., totals, percentages and means) for the quantitative data and a thematic approach for the qualitative data. The present study was framed in a constructivist epistemology, underpinned by a pragmatic paradigm whereby the method selection for each survey question was determined by the nature of the information being sought (Punch, 2014). By taking this pragmatic approach, the focus is on the research problem resulting in the decision to use a number of approaches to collect data to best understand the phenomenon under investigation (Creswell, 2014).

 To set the context for the present research, this chapter will outline the background for this study, specifically the mandates for promoting youth-student wellbeing, and the state of student wellbeing. Mindfulness is discussed in terms of the framework it sits within, its definition, potential benefits, and applications. This

introduction is followed by the rationale for the present study, particularly the state of students' mental health and wellbeing, and teachers' influence on whether new initiatives are adopted and the primary researcher's personal interest in what teachers' knowledge is about mindfulness. The research aims which guided this study and a summary of the chapters included in this thesis conclude this chapter.

Background for the study

Mandates for promoting youth-student wellbeing.

Schools have an obligation to support student well-being. As noted by the Education Review Office (2013), it is the teachers and trustees of youth who are charged with the "ethical responsibility to promote and respond to students physical, social, emotional, academic and spiritual needs in the form of pastoral care, strategic priorities and teaching practices which all require intensive school wide coordination" (p. 4). These obligations are also acknowledged in the following mandates:

- the Code of Professional Responsibility and Standards for the Teaching Profession for registered teachers which states teachers are responsible to promote the physical, emotional, social, intellectual and spiritual wellbeing of students (Education Council, 2017);
- the national administration guidelines which obligates board of trustees to provide safe environments for students to learn in, to support student's wellbeing (Ministry of Education, 2017);
- the United Nations Convention on the Rights of the Child which sets out the international human rights standards for the treatment and protection of children (Ministry of Social Development, 2017a); and
- the Vulnerable children act which mandates school boards to adopt child protection policies (Ministry of Social Development, 2017b).

Consistent with these mandates and referenced within them is the New Zealand National curriculum which aims to develop student's competencies across five domains including thinking, relating to others, using language, symbols, and texts, managing self, and participating and contributing (Ministry of Education, 2007).

The state of student wellbeing.

The psychological and physical well-being of a child is a right which is afforded to every child according to the United Nations Convention Rights of the Child (Ministry of Social Development, 2017a) which schools have an obligation to protect and promote students' well-being. However, our youth suicide rates clearly indicate that many of our youth are faced with levels of stress and adversity beyond their emotional, psychological means for coping. The UNICEF Office of Research, Innocenti Report Card 14, (2017) reported New Zealand has the highest youth suicide mortality rates among those 41 countries reported in the OECD and EU included; with the 2010 rates being 15.6 per 100,000 adolescents aged 15-19 years (UNICEF Office of Research, 2017). The suicide rates provided do not account for hospitalisations for self-harm, which are estimated to be 50 to 100-fold greater than those for suicide and even a greater number of those young people who live their lives with suicidal thoughts (Gluckman, 2017; Hawton, Saunders, & O'Connor, 2012). Additionally, New Zealand was ranked 34th out of the 41 countries for overall health and well-being of our young people (UNICEF Office of Research, 2017).

Youth mental health concerns are a result of numerous factors interacting and placing youth at risk. Such factors include stress, underdeveloped self-control-regulation and brain development, heightened impulsive behaviour, sociological, economic factors, and drug and alcohol abuse (Gluckman, 2017). These risk factors, left unchecked and unbalanced, are more likely to lead to health outcomes such as severe and harmful behaviours, including self-harm, bullying, cyberbullying, or suicide (Gluckman, 2017). Generally, it is accepted that psychotherapy, pharmaceuticals, and a focus placed on 'mental health' are only marginally helpful, and not sufficient for reducing rates of youth suicide (Gluckman, 2017; March et al., 2004). Gluckman, (2017) strongly asserts there is a need for programs in schools which focus on primary prevention strategies along with a shared understanding, and participation of local communities at each stage. Primary interventions need to focus on implementing strategies which improve impulse control, self-control, and executive function, most importantly from an early age. Secondary prevention

needs to follow on at the age of adolescence for continued success. This would require a social investment approach focusing on communities most at risk, due to low resilience, and low community self-esteem and identity (Gluckman, 2017).

Internationally, there is a focus placed on both primary and secondary interventions which aim to support young people in building resilience, and personal capacity for coping with stress in adolescence, predominantly developing children's competence for reducing impulsivity by enhancing self-control in early years (Harold & Gluckman, 2011; Wilcox & Wyman, 2016) with far reaching benefits overflowing into academic achievement, and positive realities for adult health outcomes and quality of life measures (Harold & Gluckman, 2011). Research demonstrates prevention strategies in early years is effective in reducing undesirable behaviour in classrooms, and adolescent suicidality (Kellam et al., 2011; Kellam, Reid, & Balster, 2008). Coming out of the Gluckman report (2017) is a strong recommendation that primary and secondary prevention programs be introduced into primary schools as a high priority.

Mindfulness programs have been recommended as one way to address increasing concerns about student mental-health and well-being as part of suicide prevention (Ager, Albrecht, & Cohen, 2015; Biegel & Brown, 2010; Broderick & Metz, 2009; Huppert & Johnson, 2010; Joyce, Etty-Leal, Zazryn, & Hamilton, 2010; Lantieri, Nambiar, Harnett, & Nagler-Kyse, 2016; Maloney, Lawlor, Schonert-Reichl, & Whitehead, 2016; Napoli, Krech, & Holley, 2005; Rix & Bernay, 2014). In recent years, mindfulness programs have been tested in New Zealand schools and found to be effective for supporting student well-being (Ager et al., 2015; Rix & Bernay, 2014; Saint Kentigern Independent Presbyterian Education, 2014).

Mindfulness: Framework, definition, potential benefits, and applications

     Framework.

Mindfulness theory and practice sits within a positive psychology framework, whereby a focus is placed on the positive aspects of situations, and attention is bought about by focusing on one's self, and others, thereby cultivating human virtues of loving kindness, and compassion for self and others (Seligman, 2002).

Previously 'wellbeing' had been identified by positive psychology to mean 'happiness' through the pursuit and attainment of one's wants, needs and likes, [pleasure, meaning and engagement] (Gander, Proyer, & Ruch, 2016; Seligman, 2002). However, recent extensions to Well-Being Theory have focused on the multifaceted nature of human flourishing including: positive emotions, engagement, relationships, meaning and purpose, and accomplishment (Jayawickreme, Forgeard, & Seligman, 2012; Seligman, 2011). As mindfulness has gained more popularity and awareness of positive psychology, it has been increasingly applied in settings which emphasise positive emotions, engagement, relationships, meaning and purpose, and accomplishment (Gander et al., 2016).

Definition.

Mindfulness has been defined in different ways. However, there is a consensus across researchers, practitioners and cultures that there are three core elements of mindfulness: intention, attention and attitude (Bishop et al., 2004). The most common widely accepted definition of mindfulness cited, is arguably that of Kabat-Zinn, (1994) who proclaims mindfulness is "paying attention in a particular way: on purpose, in the present moment, and non-judgementally" (p. 4). Mindfulness is discussed in more detail in the following chapter.

Potential benefits.

The use of mindfulness-based programs has become popularised since Kabat-Zinn's clinical studies in the 1980's reported numerous benefits for his mindfulness-based stress reduction (MBSR) program, resulting in human flourishing for both physical and psychological well-being (Kabat-Zinn, 1982). Positive effects reported in mindfulness studies include reduction of chronic pain; prevention of relapse in major depression; reduction of impulsive, maladaptive behaviours by depression patients, increases in positive behaviours and social and emotional regulation (Brown, Ryan, & Creswell, 2007; Kabat-Zinn, 1982, 2003; Teasdale et al., 2000; Teasdale, Segal, & Williams, 1995).

Applications.

Applications of mindfulness occur both in clinical and non-clinical settings such as work place organisations, prisons, and schools (Pirson, 2014; Purser & Loy, 2013;

Schonert-Reichl & Lawlor, 2010). The demonstrated benefits of mindfulness practices in non-clinical settings include enhanced employee task performance and wellbeing, improved interpersonal relationships, and reduced psychological ailments such as depression and anxiety (Pirson, 2014; Shapiro, Schwartz, & Bonner, 1998) and improved attention, greater acceptance and awareness of self, others and the environment (Brown & Ryan, 2003).

Some studies have shown that the physical and psychological health outcomes, and wellbeing experienced by adults from practicing mindfulness are also the same for children, particularly decreases in symptoms of stress, depression and anxiety, and an increase in feelings of being calm, self-acceptance, emotional-regulation, social-skills, and improved sleep quality have also been observed (Biegel, Brown, Shapiro, & Schubert, 2009; Broderick & Metz, 2009; Flook et al., 2010) when applied in an educational setting. The MBSR program has been adapted for being used in schools, with children, more commonly in the USA, and the UK, Australia and New Zealand to a lesser degree, given the greater responsibilities placed on schools for supporting student wellbeing (Beauchemin, Hutchins, & Patterson, 2015; Bernay, Graham, Devcich, Rix, & Rubie-Davies, 2016).

Research has also shown that mindfulness practice fosters the valued skills in students, which are beneficial for students to learn for becoming competent in such skills as managing self, relating to others, and social and emotional regulation. In addition to academic achievement and wellbeing, these reflect the skills that schools are charged with the responsibility of developing in their students in New Zealand (Education Review Office, 2013; Ministry of Education, 2007). In relation to students, research provides evidence that some of the benefits of students for practicing mindfulness are improvements in attention, including sustained, and flexible, enhanced impulse control, improved social and emotional well-being due to developing students competency for creating and maintaining positive relationships with peers and others and the ability to regulate and communicate emotions (Albrecht, Albrecht, & Cohen, 2012; Schonert-Reichl et al., 2015). These skills are necessary for individuals to flourish in their environments, and for leading

meaningful, fulfilling, happy lives (Gander et al., 2016; Jayawickreme et al., 2012). Fostering these skills will more likely reduce the risk for stress of the classroom teacher, and students, and display of behavioural problems by students, in the classroom (Kabat-Zinn, 2003), benefiting all those concerned with student outcomes and wellbeing.

Research on teachers' views of mindfulness in schools is limited. The majority of studies explore what teachers' beliefs, knowledge and perspectives are only once they have engaged in a mindfulness training or implementation of a formal mindfulness program. It is unclear though what teachers know about mindfulness practice and its potential benefits prior to teachers' engaging in any form of training or implementation of a mindfulness program.

Rationale for the research

Schools are ideally suited for implementing primary preventive interventions for enhancing student wellbeing, which once acquired can have a positive impact across a student's life span. Based on this assumption, the following underpinning principles guide the rationale for this study:

- Examining teachers' perspectives was deemed to be important because teachers are constantly making judgements about the effectiveness of their teaching practices in terms of student outcomes, and of the curriculum and programs they are implementing. When teachers deem new initiatives to be beneficial to themselves and/or their students they are more likely to advocate for the adoption of such programs.
- For consideration to be given to mindfulness as a school intervention because the current state of students' mental health and wellbeing are poor and evidence suggests mindfulness programs could be an answer to improving the state of youth mental health and wellbeing.
- Personal interest in ways for improving student wellbeing and working with young people in a holistic way, from the inside out which builds personal

capacity, rather than the outside in. Working as a teachers' aide for five years, I witnessed first-hand the most vulnerable students being made the responsibility of the [usually] most unqualified staff [teacher aides]. This led me to enquire for myself what rights these students had and what obligations teachers had for developing these students' skills. In addition, I was personally experiencing the benefits of practising mindfulness. This led me to contemplate what schools could potentially do to support student well-being and how receptive or resistant would teachers be about potential solutions for developing *every student*, in *all domains* of the curriculum, that is, I wondered what teachers' perspectives were about implementing mindfulness in schools.

Ultimately, I hoped to learn about teachers' perspectives about this potential solution [mindfulness in schools] for achieving student well-being.

Summary

Given the current status of New Zealand's youth suicide rates, and mental health being experienced by our youth and those mandates which obligate schools to promote student wellbeing, mindfulness programs have been identified as one possible solution for promoting student's well-being. Research on teachers' perspectives of mindfulness programs has primarily focused on teachers who have been trained or are currently implementing a mindfulness program. This study sought to extend the current literature and examine teachers' perspectives about use of mindfulness in schools for teachers who had not already been trained or were actively implementing a mindfulness program in their classroom. Specifically, the study aimed to examine teachers' knowledge, beliefs and perspectives on the practice of mindfulness in schools, and the utility of the skills derived from mindfulness practice in a classroom setting.

Organisation of this thesis

The remainder of this thesis is divided into five sections. Chapter two provides additional back ground information about Mindfulness; evidence for the efficacy for

mindfulness-based programs in schools; and explores research in schools with teachers. Chapter three outlines the methodology and ethical issues relating to this study. Chapter four reports on the findings of this study and chapter five discusses the results and implications for this study. Recommendations for future research, study limitations, and the research conclusion are also described.

Chapter 2: Literature Review

The practice of mindfulness is becoming more common in the western world and there is increased attention on the use of mindfulness in schools to support student learning and well-being (Schonert-Reichl & Lawlor, 2010). The purpose of the present study is to gain a greater understanding of teachers' knowledge, beliefs and perspectives on the practice of mindfulness in schools, and the utility of the skills derived from mindfulness practice in a classroom setting. To set the context for this research this chapter will briefly outline the origins of mindfulness, definition, applications and the various types of mindfulness practice. Then the researched benefits of mindfulness practice are considered followed by a deeper exploration of mindfulness curriculum and its use in school, benefit for children, and teachers' perspectives about mindfulness programs. This chapter concludes with the research aims of this study.

What is Mindfulness?

Current mindfulness theory has situated itself within the positive psychology framework. The positioning of mindfulness within positive psychology reflects recent shifts from mindfulness in eastern traditions to mindfulness in western secular applications in adult populations within clinical settings to adaptions with children in schools.

Origin.

Historically, mindfulness was considered to be a uniquely Eastern practice. For example, mindfulness has been regarded as being '*the heart*' of Buddhist mediation (Thera, 1962), and is at the centre of the teachings of the Buddha for more than 2500 years (Hanh, 1999). Nonetheless, 'bringing back the wandering attention' was believed to be vital to optimal functioning and happiness according to American Father of Psychology William James in 1890 (James, 1890; McKenzie, Hassed, & Gear, 2012), suggesting that mindfulness may have roots in both Eastern religious and spiritual practices, *and* Western psychological philosophies.

Definition.

Related to Western psychological understandings and definitions of mindfulness, Marlatt and Kristeller, (1999) describe mindfulness as "bringing one's complete attention to the present experience on a moment-to-moment basis" (p. 68). Bishop et al., (2004) assert that mindfulness encompasses two components; self-regulation of attention; and adoption of a particular-orientation towards ones' experiences. Recognising there is no consensus on an operational definition, which western psychology strives for, Shapiro, Carlson, Astin, and Freedman, (2006) provide a model for describing what they claim are the three core elements of mindfulness: intention, attention and attitude. *Intention* "reminds you from moment to moment of why you are practicing in the first place" (Kabat-Zinn, 1990, p 32). The core element of intentions is for enhancing human flourishing, of self and others. Bishop et al., (2004) and Shapiro, (2009) assert the inclusion of intention is critically important to understanding mindfulness as an entire process, and that in contemporary definitions of mindfulness, intention is often ignored, evidenced by the definition offered by Marlatt and Kristeller, (1999). *Attention* is noticing or observing ones internal and external experience in the moment (Shapiro et al., 2006). Three specific skills pertain to attention these include 1) sustained attention (Tang & Posner, 2009), 2) switching, or flexible attention (Tang & Posner, 2009), and 3) cognitive inhibition, that is the ability to inhibit secondary elaborative processing of cognitions, emotions and sensations (Shapiro et al., 2006). *Attitude* relates to *how* one pays attention, that is the type of attitude in which we intentionally attend (Kabat-Zinn, 1990).

In mindfulness, it is considered critically important to commit to making ones' attitude explicit, aligned with the virtue of loving kindness, and compassion (Shapiro et al., 2006). These three core elements of mindfulness do not function in isolation from each other, rather they circulate in a feedback loop, where intention feeds into attention, which feeds back to intention. This cycle enhances ones' ability for adopting a particular attitude. In western mindfulness practice, the seminal work of Jon Kabat-Zinn, (1990) refers to the qualities the practitioner brings to attention as the seven attitudinal foundations of mindfulness practice: Non-judging,

patience, beginners mind, trust, non-striving, acceptance and letting go. The aforementioned three core components of mindfulness and seven attitudinal foundations of mindfulness are central and consistent with what is known as the most common definition, and widely accepted of mindfulness cited, is arguably that of Jon Kabat-Zinn, (1994) who proclaims mindfulness is "paying attention in a particular way: on purpose, in the present moment, and non-judgementally" (p. 4).

Applications.

Jon Kabat-Zinn was the first to adapt the teachings (dharma) of Buddhist meditation to a secular context and has become famously known as the founder of the eight-week mindfulness-based stress reduction (MBSR) program developed, in 1979. Kabat-Zinn studied the mind/body interactions for healing, using clinical applications of his MBSR program as an intervention, with adult patients who were experiencing chronic pain (Kabat-Zinn, 1990). Kabat-Zinn, went on to examine effects of mindfulness in non-clinical settings too. Kabat-Zinn's MBSR program is recognised as the parent to numerous variations of it, including mindful-based cognitive therapy (MBCT), which is an adaption of MBSR by (Teasdale et al., 1995) used for reducing relapse of depression episodes in adult patients. Today, most mindfulness-based interventions are founded on the MBSR practice of mindfulness which research shows have been beneficial in enhancing well-being, applied to a variety of settings, including clinical, non-clinical, health and education.

Formal and informal mindfulness practice.

Mindfulness is an experiential process. To understand what mindfulness is, one must experience its affect for himself (Albrecht et al., 2012). Mindfulness is an embodied awareness, a way of knowing, a cultivation of clarity, equanimity, and compassion (Miller, 2006); cultivated by formal and informal practice. Formal practice teaches us *how* to be mindful, while informal practice allows us to *embody the experience*, to live what we have learnt (Miller, 2006). Formally, mindfulness is practiced using various techniques, including body scan, sitting and/or walking meditation, or physical movement, such as yoga (Galla, Kaiser-Greenland, & Black, 2016; Kabat-Zinn, 2005; Zenner, Herrnleben-Kurz, & Walach, 2014). Informally,

mindfulness is practically used in everyday life and activities, including eating, showering, driving, breathing and walking (Kabat-Zinn, 2005; Zenner et al., 2014).

Researched Benefits of Mindfulness

Evidence for the salutary effects of mindfulness has grown rapidly over the past few decades. MBSR and MBCT have emphasised the use of sitting and moving meditation, including yoga practices for cultivating and improving "attentional stability or continuity, sensory awareness, metacognitive skills including non-reactive observation of ones' thought and feelings, and awareness of one's behaviour in daily life" (Brown et al., 2007, p 219). There is a plethora of studies which have found mindfulness-based interventions in clinical settings to have positive effects on human flourishing, enhanced psychological and physical well-being, such as enhanced coping of physical pain with increased awareness of both pain sensations and responses to these (Kabat-Zinn, 1982). Other researched benefits of mindfulness include cognitive changes in the way people judge their own thoughts, leading to non-judgemental observational awareness of thoughts, reducing a desire for avoidance (Kabat-Zinn, 1982, 1990); improved satiety cues in binge eaters, and greater competence in observing urges for binge eating without acting on those urges through training in self-observation of thoughts and body sensations (Kristeller & Hallett, 1999).

Positive psychological effects reported by other studies utilising mindfulness-based interventions (MBCT) include prevention of relapse in major depression by training patients to have awareness of both cognitive and emotional events to prevent the escalation of negative thoughts into ruminative patterns so as to not trigger a relapse of depression (Teasdale et al., 2000, 1995). Observable positive behaviour changes are the result on other studies, evidenced by a reduction in impulsive, maladaptive behaviours by training patients in non-judgemental mental observation and application of descriptions which enables recognition of possible consequences, effecting behaviour changes (Linehan, 1993); and social and emotional regulation which enhance interpersonal behaviour and relationships

(Brown et al., 2007). Mindfulness was introduced to the western world by way of clinical trials, however, since this time, it has been taken up as a potentially effective intervention in several other settings.

Research has predominantly focused on adult populations, most commonly in aforementioned clinical settings, yet some studies have demonstrated benefits of mindfulness practices exist in nonclinical settings such as work places, government agencies, universities and prisons (Purser & Loy, 2013). Some of the benefits derived from mindfulness practice in the work place are reported to include: enhanced interpersonal behaviour; resilience, task performance, stress management, more efficient decision making and improved employees' performance and well-being at work (Pirson, 2014), reduced anxiety, psychological distress including depression, and increased scores of empathy and self-esteem (Shapiro et al., 1998).

The role of mindfulness in education has become a topic of increasing interest over the past decade. The universal availability of mindfulness lends itself well as an intervention in school settings. The following section discusses mindfulness for children in schools, skills derived from mindfulness practice and the researched benefits of mindfulness for children. This discussion will lead onto an examination of teacher's beliefs and perspectives in relation to the skills identified as being related to mindfulness practice and their utility in the classroom, supporting factors and potential barriers to implementing mindfulness programs in schools and a summary. An outline of the research aims will conclude this chapter.

Mindfulness for children in schools

Commonly, mindfulness-based programs for children are adapted versions of the infamous eight-week MBSR program founded by Jon Kabat-Zinn, (1982; 1990). In doing so the central tenants of mindfulness practice, focussed attention in the moment-by-moment and fundamental attitudes bought to the practice are maintained. Today, children are coping with increasing demands, resulting in incidence of psychological disorders such as anxiety, depression, and in some cases, tragically suicide (Bernay et al., 2016; Gillies, Boden, Friesen, Macfarlane, &

Fergusson, 2017). This may explain why promoting student wellbeing has become a priority of schools and mandated by the government in New Zealand, evidenced by the numerous professional frameworks that mandate the requirement for schools to promote and support student well-being (Education Review Office, 2013).

To support such mandates the Education Review Office (ERO) in New Zealand has identified key outcomes for student well-being, and like the NZ Curriculum competencies, schools will soon be required to report on these (Bernay et al., 2016). These key outcomes include social and emotional competence, achievement, a sense of belonging, security in one's own identity, and resilience (Education Review Office, 2013). One intervention schools are turning to is mindfulness programmes for children. The use of mindfulness-based programs has become popularised since research benefits of Kabat-Zinns, (1982) clinical studies reported numerous benefits for his MBSR program. In the past 10 years, increases in the use of mindfulness in non-clinical settings, including schools has become evident, due to its universal nature, feasibility and effectiveness in meeting the schools needs for supporting student well-being (Schonert-Reichl & Lawlor, 2010).

Today there are several adapted versions of MBSR programs which can be found in school settings both nationally and internationally, in populations as young as five years old (Napoli et al., 2005). In common with MBSR, the following school-based mindfulness programs are each secular by nature, resulting in the school-based programs reviewed here being accessible to all students, without any pre-requisite for a particular culture, religion, or philosophy, nor any learning or behavioural difficulties. Table 1 provides a list of some of the most common programs found in schools in USA, UK, Australia and New Zealand:

Table 1: Mindfulness Programs found locally and internationally in schools.

Mindfulness Program/intervention	Reference	Country	Implemented by

Mindful Schools program, (MBSR-T, Stressed teens).	Biegel & Brown, 2010.	United States of America	MF
Learning to BREATHE.	Broderick & Metz, 2009.	United States of America	MF
.b (pronounced dot-be), meaning 'stop and be.', developed by the **Mindfulness in Schools Project (MiSP).**	Huppert & Johnson, 2010.	United Kingdom & New Zealand (Dr Nick Penney)	CT who practiced mindfulness
Meditation Capsules.	Joyce, Etty-Leal, Zazryn, & Hamilton, 2010.	Australia	CT trained by MF
Meditation Capsules.	Ager et al., 2015; Saint Kentigern, 2014.	New Zealand trial	Two OSP (school Counsellor and the Well-Being Director), with the CT participating in some of the activities
Inner Resilience Program.	Lantieri, Nambiar, Harnett, & Nagler-Kyse, 2016.	USA	CT trained by MF
MindUp Program, (2011).	Maloney, Lawlor, Schonert-Reichl, & Whitehead,	USA - offered in USA, Canada, China, Hong King, Serbia,	CT trained by MF

	2016; The Hawn Foundation, 2011.	Australia, Uganda, Portugal	
Attention Academy Program (AAP).	Napoli et al., 2005.	USA	MF
Pause, Breath, Smile.	Rix & Bernay, 2014.	New Zealand	MF

Note. MF= Mindfulness facilitator external to the school; CT = Classroom teacher; or OSP = Other school personnel.

Each of the programs in Table 1 are based on the eight-week MBSR program developed by Jon Kabat-Zinn (Kabat-Zinn, 2003) and/or MBCT (Teasdale et al., 1995). Although these mindfulness-based programs each has its own audience and particular goals in mind for meeting the needs of those schools implementing them for the benefit and well-being of their students, there are more similarities than differences. Each of these programs are universal in nature, targeting all students, not just the select few experiencing academic, social or behavioural issues. Each program recognises the natural ability of all students being capable of practicing awareness and attention in each moment. While there are variances in the programs implementation in terms of length of time and frequency, each program aims to improve human flourishing in general or specific ways. Figure 1 below provides a description of both formal and informal mindfulness practice which cultivates skills and individual capabilities; it identifies which of the skills and character strengths may be enhanced across the different school-based programmes from table 1.
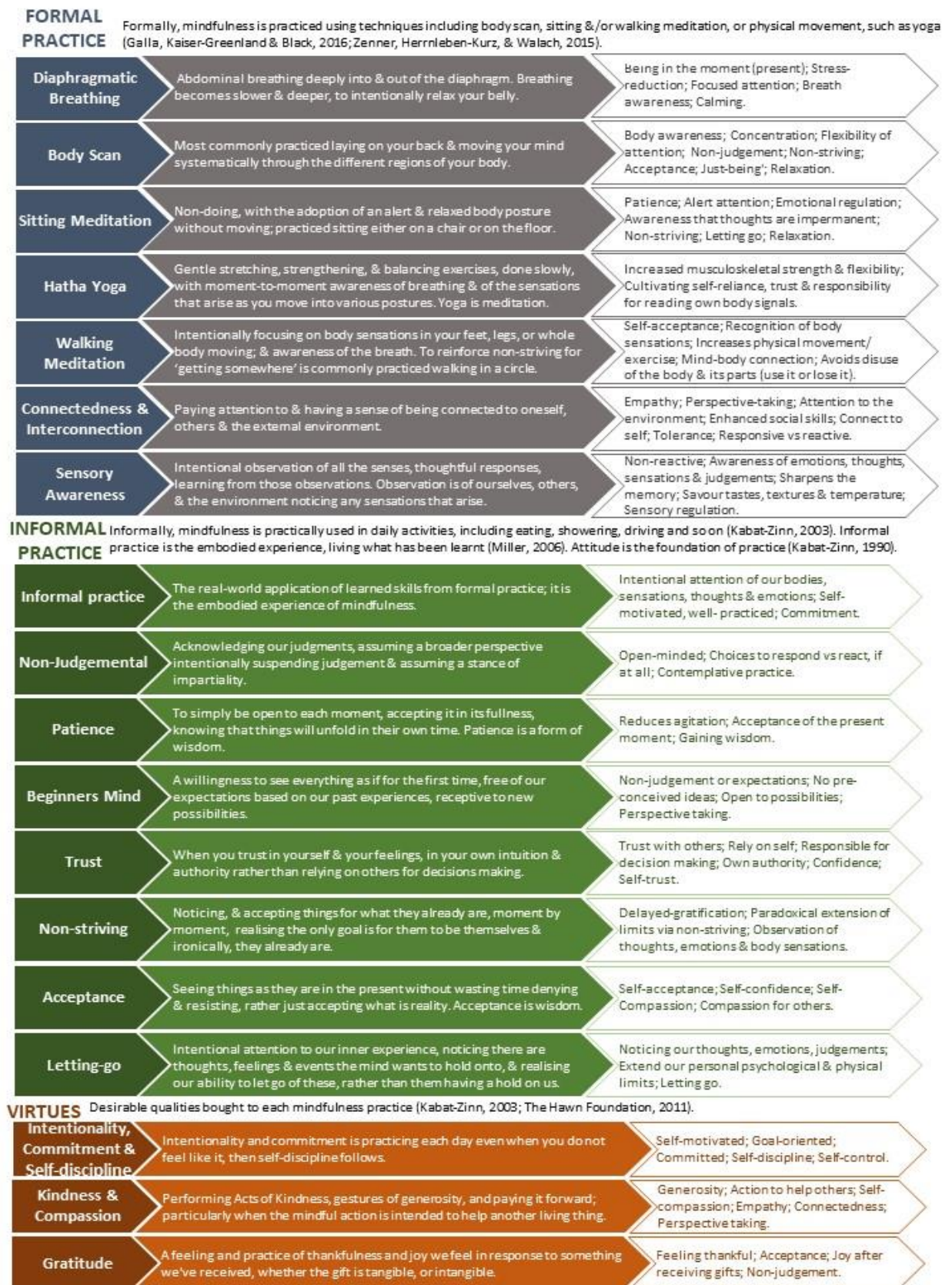
FORMAL PRACTICE Formally, mindfulness is practiced using techniques including body scan, sitting &/or walking meditation, or physical movement, such as yoga (Galla, Kaiser-Greenland & Black, 2016; Zenner, Herrnleben-Kurz, & Walach, 2015).

Skill	Description	Skills Derived
Diaphragmatic Breathing	Abdominal breathing deeply into & out of the diaphragm. Breathing becomes slower & deeper, to intentionally relax your belly.	Being in the moment (present); Stress-reduction; Focused attention; Breath awareness; Calming.
Body Scan	Most commonly practiced laying on your back & moving your mind systematically through the different regions of your body.	Body awareness; Concentration; Flexibility of attention; Non-judgement; Non-striving; Acceptance; 'Just-being'; Relaxation.
Sitting Meditation	Non-doing, with the adoption of an alert & relaxed body posture without moving; practiced sitting either on a chair or on the floor.	Patience; Alert attention; Emotional regulation; Awareness that thoughts are impermanent; Non-striving; Letting go; Relaxation.
Hatha Yoga	Gentle stretching, strengthening, & balancing exercises, done slowly, with moment-to-moment awareness of breathing & of the sensations that arise as you move into various postures. Yoga is meditation.	Increased musculoskeletal strength & flexibility; Cultivating self-reliance, trust & responsibility for reading own body signals.
Walking Meditation	Intentionally focusing on body sensations in your feet, legs, or whole body moving; & awareness of the breath. To reinforce non-striving for 'getting somewhere' is commonly practiced walking in a circle.	Self-acceptance; Recognition of body sensations; Increases physical movement/exercise; Mind-body connection; Avoids disuse of the body & its parts (use it or lose it).
Connectedness & Interconnection	Paying attention to & having a sense of being connected to oneself, others & the external environment.	Empathy; Perspective-taking; Attention to the environment; Enhanced social skills; Connect to self; Tolerance; Responsive vs reactive.
Sensory Awareness	Intentional observation of all the senses, thoughtful responses, learning from those observations. Observation is of ourselves, others, & the environment noticing any sensations that arise.	Non-reactive; Awareness of emotions, thoughts, sensations & judgements; Sharpens the memory; Savour tastes, textures & temperature; Sensory regulation.

INFORMAL PRACTICE Informally, mindfulness is practically used in daily activities, including eating, showering, driving and so on (Kabat-Zinn, 2003). Informal practice is the embodied experience, living what has been learnt (Miller, 2006). Attitude is the foundation of practice (Kabat-Zinn, 1990).

Skill	Description	Skills Derived
Informal practice	The real-world application of learned skills from formal practice; it is the embodied experience of mindfulness.	Intentional attention of our bodies, sensations, thoughts & emotions; Self-motivated, well-practiced; Commitment.
Non-Judgemental	Acknowledging our judgments, assuming a broader perspective intentionally suspending judgement & assuming a stance of impartiality.	Open-minded; Choices to respond vs react, if at all; Contemplative practice.
Patience	To simply be open to each moment, accepting it in its fullness, knowing that things will unfold in their own time. Patience is a form of wisdom.	Reduces agitation; Acceptance of the present moment; Gaining wisdom.
Beginners Mind	A willingness to see everything as if for the first time, free of our expectations based on our past experiences, receptive to new possibilities.	Non-judgement or expectations; No preconceived ideas; Open to possibilities; Perspective taking.
Trust	When you trust in yourself & your feelings, in your own intuition & authority rather than relying on others for decisions making.	Trust with others; Rely on self; Responsible for decision making; Own authority; Confidence; Self-trust.
Non-striving	Noticing, & accepting things for what they already are, moment by moment, realising the only goal is for them to be themselves & ironically, they already are.	Delayed-gratification; Paradoxical extension of limits via non-striving; Observation of thoughts, emotions & body sensations.
Acceptance	Seeing things as they are in the present without wasting time denying & resisting, rather just accepting what is reality. Acceptance is wisdom.	Self-acceptance; Self-confidence; Self-Compassion; Compassion for others.
Letting-go	Intentional attention to our inner experience, noticing there are thoughts, feelings & events the mind wants to hold onto, & realising our ability to let go of these, rather than them having a hold on us.	Noticing our thoughts, emotions, judgements; Extend our personal psychological & physical limits; Letting go.

VIRTUES Desirable qualities bought to each mindfulness practice (Kabat-Zinn, 2003; The Hawn Foundation, 2011).

Skill	Description	Skills Derived
Intentionality, Commitment & Self-discipline	Intentionality and commitment is practicing each day even when you do not feel like it, then self-discipline follows.	Self-motivated; Goal-oriented; Committed; Self-discipline; Self-control.
Kindness & Compassion	Performing Acts of Kindness, gestures of generosity, and paying it forward; particularly when the mindful action is intended to help another living thing.	Generosity; Action to help others; Self-compassion; Empathy; Connectedness; Perspective taking.
Gratitude	A feeling and practice of thankfulness and joy we feel in response to something we've received, whether the gift is tangible, or intangible.	Feeling thankful; Acceptance; Joy after receiving gifts; Non-judgement.

Figure 1: Descriptions of the skills derived from mindfulness practice.

Skills derived from mindfulness practice

There are many components which make up mindfulness practice and its potential benefits. Practitioners may not experience all or any of the potential benefits, however, evidence suggests those who practice mindfulness experience at least one of more of the potential benefits reported in Figure one (Kabat-Zinn, 2003). Figure one comprises of three columns for describing formal, informal mindfulness practice and the virtues bought by the practitioner to each practice: the left column illustrates the components of mindfulness-based programs found in Table one. In the centre of figure one are the descriptions of those components. The right column illustrates the skills derived from mindfulness practice, taken from those programs in schools in Table one and Kabat-Zinns, (1990) explanation of his MBSR program. Research has shown there are several benefits derived from practicing mindfulness in schools, and other settings for children. Some of these benefits are discussed below.

Researched Benefits of mindfulness for children

The concept of school-based mindfulness is founded on the theory that those children who engage in regular practice will gain knowledge and skills required for managing themselves, and their life experiences now, and across their lifetime. Recent research has associated mindfulness with improving general well-being, and a number of other social, emotional, cognitive and behavioural well-being indicators for youth (Education Review Office, 2013; Eklund, O'malley, & Meyer, 2017). Several systemic reviews of mindfulness found the results of the studies conducted drew similar conclusions. Conclusions drawn were that in addition to offering a range of physical and psychological benefits to well-being, mindfulness-based interventions have the potential to improve classroom management, teacher-student relationships, and were found to be acceptable, feasible and well-liked by participants in school settings (Albrecht et al., 2012; Burke, 2010; Harnett & Dawe, 2012; Weare, 2012).

Other researched-based benefits of mindfulness found in schools were increases in calm, relaxation, self-acceptance, emotional regulation, awareness and clarity of students (Broderick & Metz, 2009; Huppert & Johnson, 2010). Also, significant improvements on measures of attention, self-regulation, enhanced teacher-student relationships, and a reduction in anxiety, problem behaviours and ADHD symptomology have been reported (Frank, Jennings, & Greenberg, 2013; Semple et al., 2017, 2010). Additional benefits include improvements in meta-cognition and executive function, (Schonert-Reichl & Hymel, 2007); increased self-esteem and quality of sleep (Biegel et al., 2009; Bootzin & Stevens, 2005); and a greater trust of friends (Mendelson et al., 2010).

Even populations as young as 5-8 years old reported benefits, including decreases in both test anxiety, and ADHD behaviours along with an increase in the ability to pay attention (Napoli et al., 2005). In addition, Schonert-Reichl and Lawlor, (2010) found a decrease in aggression and oppositional behaviour, improvement in social and emotional competence and a significant increase in self-reported measures of optimism and positive emotions. Benefits reported by Schonert-Reichl and Lawlor, (2010) demonstrate some of the ways mindfulness outcomes are consistent with moving beyond reducing undesirable behaviours, and towards enhancing positive lived experiences, in the same ways positive psychology values. Benefits derived from mindfulness are evident across populations including children with prior learning difficulties or diagnosis, and in typically developing students (Chiesa & Serretti, 2011). Importantly, there is no evidence to date for any adverse side effects of mindfulness (Albrecht et al., 2012; Williams & Kabat-Zinn, 2011; Zenner et al., 2014), making this intervention an ethically, morally, physically and psychologically sound option for humans, particularly children.

While there have been these studies, Zenner et al., (2014) note that research which investigates the effects of mindfulness with children often suffers from methodological limitations, such a lack of comparative control groups, small sample sizes, short follow-up periods, and there is a greater need for randomized control trials (Zenner et al., 2014). Other challenges with research in this area are young

children may not have the vocabulary to express the effects experienced from engaging in a mindfulness-based intervention, and it can be difficult, if not impossible to isolate the effects of mindfulness programs, when other programs such as social-emotional programs are also being taught in the curriculum (Bernay et al., 2016). However, current research does provide some promising results for the beneficial use of mindfulness as a universal intervention, (Kabat-Zinn, 1990). One element which has received increased attention is that of the role of the teacher.

The Role of Teacher in Promoting Mindfulness

Where mindfulness programs have been implemented in schools they are often delivered by mindfulness facilitators who are external to the school, trained in the mindfulness program being implemented, rather than the classroom teacher themselves delivering the mindfulness program. In these contexts, the classroom teacher is rarely involved in the implementation of the program, becoming either the neutral observer or not involved at all. Interestingly, even though teachers are commonly not directly involved in the goal setting, planning, or implementation of these mindfulness-based school programs, they are still able to recognise the benefits and identify the skills children develop from their participation in the mindfulness-based programs (Ahlin & Kjellgren, 2016; Albrecht, 2016; Campion & Rocco, 2009; Dariotis et al., 2016, 2017; Thomas & Atkinson, 2017).

Historically, researchers have concerned themselves with the efficacy of mindfulness programs for children, reporting that the benefits for children's well-being are far reaching (Burke, 2010). There is little known about best practice for delivering such programs (Burke, 2010), and even less research has been conducted to gain a greater understanding of teachers' beliefs and perspectives about the life skills children learn from regular mindfulness-based practice or the utility of those skills in the classroom. The following section will examine teachers' beliefs and perspectives about mindfulness curriculum implementation and the impacts on learning.

The influence of teachers' beliefs and perspectives

According to Abelson, (1979), belief systems are episodically stored in memory from personal experience, cultural or institutional sources of knowledge, compared to knowledge (facts) which are stored in semantic networks, more open to change based on new knowledge and understandings. Beliefs are often laden with emotional responses to personal experiences, giving them greater subjective strength and legitimacy (Nespor, 1987); rarely open to public scrutiny or dispute and generally stable over time, thus, seldom changing (Nespor, 1987; Stipek, 2002), even when evidence to the contrary is available. Once beliefs are formed, assumptions are held by the beholder that they are true and correct, causing beliefs and expectations to become self-fulfilling (Stipek, 2002). Research shows opportunities for student learning may be lost due to teachers unchallenged beliefs about student's capabilities (Clark & Peterson, 1986). Consequently, teachers' beliefs and perspectives can have real-life consequences for students, both positive or negative impact on student motivation, student's self-concept, student achievement, and curriculum implementation (Nespor, 1987; Stipek, 2002).

Teaching practices are influenced by teachers beliefs when teaching goals are founded on what teachers perceive as being relevant, and important content (Nespor, 1987). Examples of research findings here demonstrate how teacher's beliefs and perspectives influence what learning occurs in the classroom and ways teachers' beliefs can sometimes be barriers to accepting new teaching and learning approaches. Alternatively, teachers' beliefs are potentially central to the successful implementation of new approaches to teaching and learning, including implementation of a mindfulness program.

      Teachers' beliefs and perspectives about mindfulness programs in schools.
Research specifically about teachers' beliefs and perspectives of mindfulness programs in schools is scarce, although some studies do examine teachers' perspectives about the acceptability and feasibility of mindfulness in schools (Albrecht et al., 2012; Semple et al., 2017). A thematic review of the limited research found in relation to teachers' perspectives of mindfulness programs in

schools drew similar conclusions. Two themes emerged: supporting factors and potential barriers to implementing mindfulness programs in schools. Supporting factors include 1) skills cultivated from mindfulness-based program (MBP) and their generalisability to other contexts, 2) Enhanced connectedness, 3) Feasibility, acceptability, and fidelity of the program, and 4) Teachers traits. Potential barriers to implementing MBP included: 1) Tension between curriculum demands and being mindful, 2) The principal's endorsement, 3) Program logistics, and 4) Teachers training. Although several studies here included an examination of student's perspectives on the same programs, this is beyond the scope of this study and will not be included.

Teachers beliefs and perceptions about the utility of the identified skills in the classroom.

Teachers may not hold the same views about formal and/or informal practice of mindfulness as they do for those programs which teach these practices. Here a discussion of teachers' perceptions about the utility of some of the skills derived from mindfulness practice described in Figure one above will follow. Specifically, meditation, movement, and social and emotional learning (SEL), including self-awareness, social awareness, recognition and self-regulation of emotions, relationship skills, empathy and responsible decision-making.

A study by Mclean, (2001), examined pupil and teachers perceptions of the relationship between meditation and learning. Meditation was practiced by over 250 pupils ages 5-11 across two participating schools. Three themes of perception emerged: readiness for learning, enhancing creative expression, and spiritual development. Teachers attributed the levels of quietness which developed from the meditation practice to enhancing student's capabilities for being calm and quiet when necessary, and staying focused, without becoming distracted by others or the environment as skills which aid self and collaborative learning, allowing the students to self-manage while the teacher got on with other tasks. Consequently, students were able to concentrate at exam time when environmental conditions were less than ideal with stormy weather (Mclean, 2001). Guided meditation was believed to be associated with heightening student's awareness and stimulating

their motivation, thus, improving students descriptive writing. Teachers reported mediation provided opportunities for the student to extend their existing knowledge and be curious to understand those things greater than themselves, and can have a positive effect on students attitude to learning in general too (Mclean, 2001). Evidently, the skills acquired from meditation practice were perceived to be beneficial to students.

A qualitative study by Gehris, Gooze, and Whitaker, (2015) examined the perceptions of 37 teachers from a Head Start programme, serving approximately 1100 children aged 3-5 years of age, across 19 centres located in three cities, about children's movement and learning in early childhood education programs. Such movement can be likened to that found in yoga practice and walking meditation. Teachers from this study perceived movement as a means to develop spatial awareness, and fine and gross motor skills (Gehris et al., 2015). Thus, teaching practices were founded on the belief children have a need for movement; that movement builds children's social skills while engaging in unstructured play, and enhanced self-confidence which generalises to other areas of the curriculum (Gehris et al., 2015). This way teachers included movement in the children's routine with the purpose of teaching new concepts, building social skills, strengthening emotional bonds and forming trusted relationships between the teachers and students, and additionally expelling energy in preparation for sedentary learning tasks (Gehris et al., 2015). Others suggest movement also assists the individual to extend their physical abilities, and learn their personal limits (The Hawn Foundation, 2011). Ultimately, teachers say they are supporting an innate need and urge to move in children, which teachers believe fosters child development across numerous areas, including physical, emotional, and interpersonal to name a few.

Teachers knowledge, perceptions and practices about social and emotional learning (SEL) were examined in a survey study (Buchanan, Gueldner, Tran, & Merrell, 2009) with 263 elementary and middle school teachers across two states in the USA. According to Lopes and Salovey, (2004), SEL concepts include self-awareness, social awareness, recognition and self-regulation of emotions, relationship skills, empathy and responsible decision-making. Schools are well positioned for teaching these

skills . Buchanan et al., (2009) reported 98% of respondent teachers perceived SEL to be important in and out of school, while 96.2% agreed SEL skills are associated with enhanced academic outcomes (Buchanan et al., 2009). Surprisingly, only half the teachers said they were currently implementing a SEL curriculum (Buchanan et al., 2009). Almost half of the teachers in this survey indicated they were not satisfied with their own professional knowledge or confidence in implementing a SEL curriculum, even though the same number of teachers felt they should be. These findings demonstrate teachers do value SEL skills and are willing to teach these with the appropriate support, but half of the teachers felt they lack the skills to do so.

The research discussed in the above section suggests that several of the skills associated with mindfulness programs are viewed by teachers as beneficial to students both in the classroom and across other settings. Moreover, teachers who have experienced a mindfulness programme also view the skills derived from these programmes as equally beneficially. Given these positive views of teachers and that emerging research suggests that skills cultivated and enhanced by mindfulness practice are related to physical development, academic achievement and importantly, social and emotional development, it is likely that programmes to support mindfulness in school are likely to expand. Some schools have made the decision to include mindfulness-based programs in their school curriculums in some form, either implicitly or explicitly, suggesting the evidence reported to date are compelling enough to warrant school support for mindfulness-based programs in the classroom.

Supporting Factors to implementing mindfulness programs in schools

Skills cultivated from Mindfulness-based program (MBP) and their generalisability to other contexts.

Some studies have shown that classroom teachers perceived MBP as being effective in cultivating life skills which generalised from the classroom to other settings. For example, qualitative research published by Dariotis et al., (2017) examined both 5th & 6th grade participants (n=22) and their classroom teachers'

(n=9), perspectives about the implementation of a 16-week school-based mindfulness and yoga program which was implemented by an outside agency of three yoga instructors who acted as the mindfulness facilitator. This study found the classroom teacher's, who were not directly involved with the program, were unanimously satisfied with the program content, recognising the programs potential to provide students with self-regulation tools, which they assert generalise to other settings. Additionally, Dariotis et al., (2017) reported classroom teachers believed MBP promoted both improved classroom behaviour and academic outcomes.

Similarly, Thomas & Atkinson, (2017), examined the views of both students and their classroom teacher's, about a six hour, whole-class mindfulness programme called Paws.b, which was embedded into the curriculum, implemented by a mindfulness facilitator, for the year 4 (8-9year olds) school curriculum with (n=16) from class one and (n=12) from class two and (n=3) classroom teacher's, made up of classroom one teacher and classroom two had two teachers, plus the mindfulness facilitator. The facilitator was a senior leader trained to deliver Paws.b. The classroom teachers reported students were more able to recognise their own mind wandering habits, resulting in increased sustained attention capabilities, and enhanced memory and extended students' knowledge and awareness of their own thoughts. Like other research (Campion & Rocco, 2009; Dariotis et al., 2017), Thomas and Atkinson, (2017) reported that classroom teacher's recognised that the program assisted students in the self-regulation of their emotions and relaxation, reducing peer conflict.

Campion and Rocco, (2009) examined students', classroom teachers and parents/caregiver's perspectives of a mindfulness/meditation-based program with more than 10,000 students between the ages of 5-18 years old. Semi-structured individual and group interviews with 54 students, 19 classroom teachers and seven parents were carried out in three schools, each at the elementary level. Across the three schools there was variance in the frequency of meditation ranging from school wide, daily practice for 15 minutes, to classroom wide, and responsive to behaviour for unspecified time. Additionally, there was variance in the practice

itself with some including religious content such as a mantra. Classroom teachers reported numerous benefits for participants of the meditation program, citing increased relaxation and feelings of calm, reduced stress, reduced anger and improved concentration both in and out of school context, particularly at times of stress (Campion & Rocco, 2009). Overall, the classroom teachers perceived this program to be beneficial to the students' learning of life skills and stress management and enhancing mental-welling.

Enhanced connectedness.

A study by Thomas and Atkinson (2017) found classroom teachers reported the benefits from students having learnt regulation of their emotions resulted in less peer conflict, and enhanced interpersonal relationships between classroom teacher/student and student with their peers. A study by Ahlin and Kjellgran, (2016) examined the perspectives of those teachers who currently practice either mindfulness or meditation. Twelve experienced mindfulness teachers from either within the Buddhist, secular or both Buddhist and secular traditions were interviewed. Across the group, their experience in teaching mindfulness and meditation ranged from 7 – 40 years. These mindfulness teachers believed that knowing their students personally, and having knowledge about the context they are teaching in, helped teachers of mindfulness connect with students in meaningful ways (Ahlin & Kjellgren, 2016). Additionally, teachers experience in mindfulness practice will increase their compassion for others which compels them as practitioners to share with others their own experience, resulting in the practitioner becoming a teacher of mindfulness practice (Ahlin & Kjellgren, 2016).

A study by (Albrecht, 2016) examined how eight classroom teachers, who were also experienced Mindbody Wellness (MBW) instructors made sense of teaching children mindfulness based on their experience. Years of experience *teaching* MindBody Wellness (MBW) ranged from 2-15 years, while years of *practising* MindBody Wellness (MBW) varied from 2-40 years, in contexts ranging from primary trained teachers to after school care program developers, special needs teachers and middle school teachers, most were secular, a few were faith-based. Albrecht, (2016) reported that classroom teacher who were also MBW instructors

perceived spirituality as playing an integral role in MBW teachers' mindfulness practice. The act of teaching mindfulness to children was linked to the MBW teachers heightened sense of wellbeing and a compulsion to teach from their experience. The classroom teachers claimed that teaching mindfulness provided them opportunities to nurture their students and enhance feelings of connectedness, both with their students, including harmony between their own mind, body and spirit, enhancing their spiritual experiences (Ahlin & Kjellgran, 2016).

Feasibility, acceptability, and fidelity.

Overall, the classroom teachers were happy with the program content offered in the Dariotis et al., (2017) study. Specifically, teachers perceived the Paws.b program and its content as being accessible to all students, stating "there's no right or wrong with mindfulness" (Thomas & Atkinson, 2017. p 9). Because there is no prerequisite for academic ability, and given the universal nature of mindfulness as an intervention, classroom teacher's perceived MBP as being accessible to all students, not just those students who are experiencing academic or behavioural challenges (Campion & Rocco, 2009; Dariotis et al., 2017; Thomas & Atkinson, 2017) and acceptable based on student feedback (Thomas & Atkinson, 2017).

Not only is there is no prerequisite for academic ability, age is also not defining factor for accessing mindfulness practice. Research by Dariotis et al., (2017) showed participating teachers believed it was feasible for students at a much younger age than 5th & 6th grade to be included in a program. Teachers reported that by making the curriculum accessible to younger students would create more time and greater opportunities for students to learn the skills derived from the mindfulness/yoga based program (Dariotis et al., 2017). In saying that, teachers also said that students should have the freedom to voluntarily participate, rather than being mandated to do so (Dariotis et al., 2017).

The universal approach, being a whole-school/class-wide practice was perceived by classroom teachers to facilitate more regular practice (Thomas & Atkinson, 2017), which according to Kabat-Zinn, (1982; 2005) is associated with enhanced benefits. One study demonstrated levels of implementation fidelity were linked to how

completely the program was adopted by the principal, how much training teachers received, individual teachers perception for the benefits and level of buy-in and support from the assistant principals (Campion & Rocco, 2009).

Teachers' traits.

Across research studies about mindfulness, there is a consensus by mindfulness teachers that regular embodied practice is a requirement for mindfulness teachers to fully gain the benefits and to effectively enable them to gain the insight and compassion needed for teaching others about their own experiences (Ahin & Kjellgran, 2016; Albrecht, 2016; Dariotis et al., 2017; Thomas & Atkinson, 2017). Classroom teacher's recognised the importance of regular practice as supporting the implementation of the program, going as far as suggesting they too be taught mindfulness skills, demonstrating a willingness to engage in personal mindfulness practice to be well positioned for supporting implementation of the program and reinforce the skills students learnt from the program (Dariotis et al., 2017). These classroom teachers further suggested that their training in mindfulness and yoga program could be part of their professional development, as long as this was supported by the school principal and ongoing support was provided to assess fidelity of the program by the facilitator (Dariotis et al., 2017).

Mindfulness teachers believe that to teach mindfulness or meditation a prerequisite should be an embodied approach, whereby mindfulness teachers hold the virtue of compassion, and teach what they have learnt and experienced themselves, so learning and teaching are insightful (Ahlin & Kjellgren, 2016). The consensus among experienced mindfulness teachers was that to teach children mindfulness, first the instructor should embody the practice in his or her own life (Albrecht, 2016). As a side note, related to student traits and perhaps surprisingly, teachers of mindfulness and meditation hold the belief that students are more likely to be motivated to learn when they have experienced discomfort, gaining an awareness of dissatisfaction helps students to be open and willing participants to learn (Ahlin & Kjellgren, 2016).

Potential Barriers to implementing mindfulness programs in schools

Tension between curriculum demands and being mindful.

One barrier the classroom teachers reported was the difficulty of adopting a mindful way of being in the classroom, alongside implementing the school curriculum. A classroom teacher commented: "felt like there was not enough time to allocate to mindfulness due to a 'jam-packed' schedule" (Albrecht, 2016, p. 146). Time pressure created a barrier for gaining classroom teacher buy-in for implementing yet another program into what was already a tight schedule, regardless of its potential benefits (Campion & Rocco, 2009).

School principals' endorsement.

Related to time and competing demands, classroom teachers stated they would require the school administrators (principals) endorsement to implement a MBP (Campion & Rocco, 2009; Dariotis et al., 2017). They were prepared to invest their time in attending professional development to learn how to implement a mindfulness-based and yoga program, again, only if this was supported by the school principal and ongoing support was provided to assess fidelity of the program by the mindfulness facilitator (Dariotis et al., 2017). This makes sense given classroom teachers have already alluded to the fact that time is precious, and it should be the principal who makes time and resources available to classroom teacher's for implementing any program.

Program logistics.

While having a mindfulness facilitator lead the programme can free up the classroom teachers time, it is not without its own logistical problems. In one study, a mindfulness facilitator program resulted in classroom teacher reporting a timetabling conflict with students having to choose between program participation or attendance of other preferred school subjects (Dariotis et al., 2017). In this case, these classroom teacher's felt uninformed about the program goals, student progress, student participation and behaviour. (Dariotis et al., 2017). Furthermore, the classroom teachers would have preferred greater frequency and detail of information to be shared between the mindfulness facilitator and themselves nearer the course date, rather than extensive notice given, requiring the classroom teachers to remember details and organise students (Dariotis et al., 2017).

Additionally, the classroom teacher's preferred that student's whereabouts be accounted for by the mindfulness facilitator, including collection of students from class; relinquishing the classroom teacher from being responsible for accounting for their student's whereabouts, at a time they were engaging in the mindfulness facilitator's program. Implementation of a mindfulness program could be improved by having a classroom teacher-led program which might help mitigate these concerns (Thomas & Atkinson, 2017).

Teacher training.

Yet teacher-led programs require teacher training. Mindfulness teachers who personally practice mindfulness assert that becoming a teacher of mindfulness or mediation does not require a formal education. Rather, what is required is sufficient compassion and insight gained from personal practice (Ahlin & Kjellgren, 2016). These mindfulness teachers argue teaching mindfulness, like learning mindfulness is a lifelong journey. However, once students have achieved some insight and experience they are better positioned to teach (Ahlin & Kjellgren, 2016).

Research shows fidelity was associated with levels of classroom teachers training in mindfulness, signifying the relevance and importance of classroom teachers training in mindfulness practices (Campion & Rocco, 2009). It is noteworthy that those classroom teachers who believe there *is* a need for teachers to train in mindfulness to teach it, are those who *are not* currently personal practitioners of mindfulness meditation themselves; highlighting non-practitioners have not experienced the embodied practice of mindfulness, its benefits, or ways for practicing, therefore feel a need to be trained in ways to teach others. Conversely, personal practitioners feel equipped to teacher others mindfulness based on their experience from embodied practice. Importantly, classroom teachers reported an incentive for classroom teachers to promote and implement a MBP was receiving the free training in the program, furthermore, classroom teacher's felt motivated to support the program by the possibility of the program assisting students to improve classroom behaviour and academic outcomes (Dariotis et al., 2017). Regardless of the established need for training, teachers have clearly indicated a keenness for

learning more about MBP, for teaching purposes founded on a recognition of the many benefits it brings about, and the skills practitioners can acquire.

Summary

Considering the emerging body of evidence, it appears that classroom teachers' beliefs and perspectives about mindfulness are similar in many ways, in that commonly classroom teacher's recognise the skills students can learn from participating in a mindfulness based program, and generalisability of those skills to other contexts. Logistic difficulties for implementing the program can be overcome when the program is classroom teacher led, rather than mindfulness facilitator led. Across the studies examined, classroom teacher's state that they require similar supports for promoting mindfulness programs in the classroom. These supports include time, resources, and overall, endorsement from their school principal, who is ultimately responsible for making time in the curriculum and resources available to the classroom teacher's. Importantly, classroom teachers who are not mindfulness practitioners agree they needed professional development and training to enable them to promote mindfulness and the skills from it, while mindfulness facilitator's who also personally practice mindfulness meditation disagreed, asserting the only requirement needed to teach mindfulness was compassion and insight, both gained through the act of embodied mindfulness practice. The few studies which have examined classroom teacher's beliefs and perspectives of mindfulness programs in school are all based in schools where a mindfulness-based program had been implemented. This present study seeks to understand classroom teachers' beliefs and perspectives of mindfulness in schools, in general. There is a lack of studies in this area and this study attempts to address research gap.

Research Aims

The review of literature discussed in the above section suggests that many of the skills associated with mindfulness programs are viewed by teachers as being beneficial to students both in the classroom, and across other settings. Moreover,

teachers who have experienced a mindfulness programme view the skills derived from these programmes as beneficial. Given these positive views teachers have about mindfulness programs in schools and that emerging research suggests that skills cultivated and enhanced by mindfulness practice are related to cognitive development, physical development, academic achievement and importantly, social and emotional development and resilience it is probable that programmes to support mindfulness in schools are likely to expand. The evidence reported to date is compelling enough to warrant schools to consider the implementation of mindfulness-based programs in the classroom. As schools make the decision to include mindfulness-based programs in their school curriculums, it may be useful to know the perspectives of a currently under-researched population of stakeholder – teachers who have not previously participated in a school-based mindfulness programme. Given the likely increase of mindfulness in schools in the future, this research aims to gain a greater understanding of these teacher's knowledge, beliefs and perspectives about mindfulness programs in schools, the skills derived from mindfulness programs, and the utility of those skills. Furthermore, this study will examine what support teachers need to promote the implementation of mindfulness in schools. The research will explore the perspectives of teachers who have not already participated the training or implementation of a mindfulness program. The following research questions will guide this study:

1: What are teachers' knowledge, and understanding about mindfulness in schools?

2: What are teachers' beliefs and perspectives of the skills used in mindfulness?

3: What do teachers need to support/promote mindfulness skills in the classroom?

Chapter 3: Methodology

Introduction

The primary purpose of this study was to explore classroom teachers' knowledge, beliefs and perspectives about the use and values of *mindfulness* in a classroom setting. The study was specifically aimed at gathering the perspectives of primary teachers who had not previously participated in a formal mindfulness programme for students in schools. For the purposes of this study, a formal mindfulness program is defined as one that is part of the school curriculum, either explicit or embedded, and with the intention of practising mindfulness formally or informally.

Placed within a constructivist epistemology the present study was conducted through an anonymous online survey, using Survey Monkey, with primary school teachers from three selected regions within New Zealand (NZ) including: Canterbury, Taranaki, and Waikato as being a representative mix of both urban and rural primary schools within New Zealand. The present study used a mixed-methods design, with an expectation of easily disseminating numerical data and gaining a deeper understanding of participants perspectives. Data analyses included descriptive statistics (e.g., totals, percentages and means) for the quantitative data and a thematic approach for the qualitative data. The use of an anonymous survey may have provided participants confidence to share their personal world views, independent to their employers. The use of mixed-methods approach to this study supports the aim of this research.

This chapter firstly describes the methodological theory this research sits within. It then discusses research design of this study and the procedures followed for accessing participants and a description of the sample are provided. A description of the survey design is provided. Then validity measures are described followed by the survey dissemination and data analyses used for this study. Lastly, the ethical issues considered.

Methodological Theory

Social science research examines society and its individual member's, seeking to understand trends, stratifications and rules in society and people's attitudes, assumptions, beliefs within them (Neuman, 2014). The present study was framed in a constructivist epistemology, which seeks to gain a greater understanding of individual's own subjective world view, based on their personal experiences. Ertmer and Newby, (2013) assert that a constructivist paradigm suggests that social research is subjective, as realities are individually constructed based on the individuals own experience (Ertmer & Newby, 2013; Punch, 2014). This study was underpinned by a pragmatic paradigm, which holds the view that the nature and focus of the research questions being asked are more important and decided on prior to deciding on the method to be used to collect data (Saunders, Lewis, & Thornhill, 2012). A pragmatism paradigm is most commonly associated with mixed methods research (Morgan, 2014; Punch, 2014). In taking a pragmatic approach, researchers avoid potential limitations through selection of a specific approach for the entirety of the study, and instead, focuses on 'what works' in getting research questions answered" (Tashakkori & Teddlie, 2003, cited in Punch, 2014, p. 304). A pragmatic approach to survey design in this study resulted in the design of survey question based on appropriate methods for addressing the aim of the study's overarching research questions. The aim of the present study was to gain a greater understanding of individual primary teachers' perspectives about mindfulness in schools, such as a mixed-method research design underpinned by a constructivist and pragmatic epistemology was employed.

Research Design

This study used a mixed-methods survey approach designed to capture both descriptive quantitative and qualitative data about primary teacher's knowledge, beliefs and perspectives about mindfulness in schools. The rational for using a mixed-method approach for this study was to discover more about the research topic by combining the methods in a way that achieves complementary strengths and non-overlapping weakness (Johnson & Onwuegbuzie, 2004). Quantitative data

were collected utilising closed questions and multiple choice that could be summarised with numbers such as percentage of respondents. Qualitative data were collected utilising open-ended questions that would capture the teacher's unique perspectives, then analysed using a thematic-analysis procedure for disseminating the meaning of individual responses.

The survey design was selected because it was an appropriate method for addressing the aim of this study (i.e., gather perspectives from a range of teachers across geographical areas). Surveys are well positioned for incorporating mixed-methods within the one study as well (Punch, 2014). Furthermore, the survey design was a convenient, inexpensive procedure to follow for accessing the participants who met the criterion of being primary teachers who have not previously been involved in implementing a formal mindfulness program in a classroom environment. Survey design, which is anonymous, such as this one, affords the respondents an opportunity to provide honest, unbiased answers to survey questions compared to other research methodologies such as group discussions.

An online survey design is convenient in two ways, first, it is a convenient process for the researcher to follow for distributing the surveys to the entire sample, and second, survey design is convenient for the respondents themselves whereby they can choose what time of day they complete it. Other benefits of choosing a survey design were the survey itself could be designed 'online', using the Survey Monkey platform. This design allowed for a simple way to access participants across diverse geographic areas via the internet, without cost, or the requirement of technical knowledge. Survey design allowed for time efficient creation, piloting of the survey, refining, and distribution dissemination of the survey. Using a survey design in Survey Monkey also allowed the for effective data management of the data collected, and the ability to export the data easily into MS excel for data analysis.

Procedures
Sampling.

This study utilised non-probability, purposive non-proportional quota sample. Purposive sampling was used to allow the researcher to access individuals of

interest, being primary school teachers, rather than sampling a portion of all teachers. Non-proportional quota sampling assisted in obtaining a satisfactory response rate. Three regions were selected for inclusion in this study including: Canterbury, Taranaki, and Waikato as being a representative mix of both urban and rural primary schools within New Zealand. Canterbury is located in the eastern, central South Island of New Zealand, Taranaki and Waikato are both located on the western side of the central North Island of New Zealand. The reason three regions were included was to ensure data collection and analysis were kept at a manageable level, while obtaining a satisfactory response rate.

The Ministry of Education school database from the Education Counts website was used to identify the schools in each of the three selected regions (Education Counts, 2018). Only those schools termed 'full primary', which is a term used to describe those schools which enrols only year 1-6 level students were included. Once the list of all 'full primary' schools was generated for each of the three selected regions, each list was then randomised, and the first twenty full primary schools were selected for inclusion in this study. It is unrealistic to survey an entire population. By selecting a manageable sized sample from the population, and randomising this, the sample is more likely to be representative of the population. Thus, findings are intended to be generalizable to the greater population of primary school teachers in the selected three regions. Additionally, this selection process resulted in a manageable amount of data, in terms of data collection and analysis.

The Sample

     Participating Schools.

According to the Education Counts website, the 'full primary' schools for each of the three regions showed the Canterbury region listed 140 'full primary' schools. Of those 140 schools, 89 were identified as being urban, while 51 identified as rural. The Taranaki region listed 42 'full primary' schools. Of those 42 schools, 19 were identified as being urban, while 23 identified as rural. The Waikato region listed 155 'full primary' schools. Of those 155 schools, 77 were identified as being urban, while 78 identified as rural. A full range of ethnic student populations are listed as being

enrolled in each of the included 20 schools across each of the three included regions (see Education Counts website).

Participating Primary Teachers.

Primary school teachers were specifically targeted for inclusion in this study because they are directly involved in teaching primary aged students at years 1-6 level. Primary school teachers were accessed through their respective employer primary schools. The selected schools were contacted directly via the school principal. The school principals then forwarded the invitation to participate, the full information sheet about the study, and the electronic link to the online survey to their respective teachers (see appendix A & B). The decision to participate or not was made by the individual primary teachers on a voluntary basis. While 60 primary schools received the invitation, it is not known how many of those principals forwarded the invitation on to their teaching staff, or how many potential participants were invited to take part in this study. Invitation materials clearly specified teachers who had not participated in the training of or implementation of a school-based mindfulness program were the target audience for the survey.

Survey Design

Survey objectives.

The survey was designed to capture the individual perspectives of primary teachers about mindfulness in a school setting. Specifically, the aim was to explore classroom teachers' knowledge, beliefs and perspectives about the use and values of *mindfulness* in a classroom setting. The survey also aimed to understand the value teachers place on specific skills in the classroom, and if they believed that mindfulness cultivates those skills in the classroom. Additionally, this survey aimed to capture what support if any primary teachers believed they needed for promoting a formal mindfulness program in the classroom.

Survey development.

The anonymous online survey was developed by the researcher in two stages; firstly, survey questions were selected for inclusion in the survey pilot based on the specific aims of the study for exploring primary teacher's knowledge, beliefs and perspectives about the use and values of *mindfulness* in a classroom setting.

Initially, the survey consisted of eight sections and 31 questions, with an estimated completion time of 20 – 25 minutes. The survey was then piloted with a small pilot sample of teachers. From the pilot feedback, minor alterations were made before the survey was made available to participants via an email provided to the school principals.

Survey sections.

The final survey consisted of 10 sections including the information section, 30 questions, with qualitative questions embedded in the survey following quantitative questions and the 'thank-you for participating' final section. It is common practice that qualitative questions are used to further support the findings of the quantitative questions (Punch, 2014). In this survey, qualitative questions followed quantitative questions to further explain quantitative responses. It was hoped that this approach would help the researcher gain a deeper insight and understanding of the primary teachers' perspectives.

Section one-Survey information: To ensure potential participants were fully informed about the purpose of the study and process for providing informed consent, section one of the survey informed participants about the aims of this study and obtained informed consent from participants (See section one: appendix C). Participants were additionally advised they were providing their informed consent to participate once they answered any survey question. By clicking the 'next button' respondents are moved onto question one which was the qualifying question. Participants were also told that a summary of the findings of this survey could be made available to them at their request by contacting the researcher directly.

Section two-Qualifying question: To target a specific sample, section two of the survey had Survey Monkey's question logic applied to the response to this question. Question logic is a function within the Survey Monkey platform which allows the researcher to set the logical sequence of questions to follow, based on a respondent's response to a selected question. The section began with the definition of mindfulness, as being 'a structured program explicitly or intentionally embedded into the school curriculum for the purpose of teaching mindfulness practices, either

formally or informally'. This definition was followed by a disqualification question, "Have you ever participated in the training of or implementation of a school-based mindfulness program?" in order to further target those primary school teachers who had never been involved in the implementation of a formal mindfulness program in school previously.

The rationale for this disqualification criterion is that much of the research about mindfulness in schools examines teacher perspectives following the implementation of a mindfulness programme, whereas, this study focuses on understanding teachers' knowledge, beliefs and perspectives about mindfulness when teachers have not had previous experience with programmes designed for schools. Depending on the individual response, respondents either progressed further in the survey, or exited from the survey, to the disqualification page.

Section three-Demographic questions: At the start of the survey, each respondent was asked demographic questions related to themselves and the schools they worked in. Participants were asked to report: how many years teaching experience in total they had; what year level they currently taught; which ethnicity groups they identify with (with the option to select more than one pre-determined option); and their gender (male or female). Questions related to the school teachers worked in included asking teachers if their school was a state, private or integrated school, what the decile rating of their school is, whether their school is best described as urban or rural, and which region their school is located in. This section included questions 2 – 9.

Section four-Knowledge, beliefs and perspectives about mindfulness in schools: Teacher knowledge, beliefs and perspectives can influence what is included in the school curriculum, and ultimately what children learn (Brophy, 2010). To gain a better understanding about what teachers' knowledge, beliefs and perspectives were about mindfulness in schools, participants were provided with the same description of what mindfulness is from section two. Based on this definition, participants were asked if they currently practise mindfulness, whether they had heard of the term 'mindfulness' before participating in this survey, and to describe what mindfulness is in their own words. Participants were asked if they

believed mindfulness should be taught in classrooms, and to explain their response to this question.

It was the researchers aim to learn if teachers believed mindfulness could be beneficial for students to practice, and why they responded the way they did to this question. Participants were asked who should be responsible for teaching mindfulness in the classroom setting, and were provided with a list of potential facilitators, including the classroom teacher, outside agency, school social worker, school administrator, school principal, or school counsellor and to explain their response to this question. Participants were also asked if they would be willing to implement a mindfulness program in their classroom and why. Section four included questions 10 – 20 with most quantitative questions being followed by qualitative questions to allow for further explanations.

Section five-Knowledge, beliefs, and perspectives about key skills in the classroom: Teachers are more likely to include the content they evaluate as being important to learn, in the curriculum, compared to content they do not value as being important (Brophy, 2010). To better understand which skills teachers valued, teachers were asked to select which skills they perceived as being important for students to demonstrate in a classroom setting. Participants could select multiple skills from a predetermined list of 11 skills and had the option to identify any other skills they deemed to be critically important in the classroom. The 11 skills were derived from an accumulation of literature which studied mindfulness in schools and had identified those 11 skills as being developed in students from mindfulness practice. The 11 skills were selected for inclusion for consistency purposes, to align with those studies which examine teachers' perceptions about mindfulness post being involved in either training or the implementation of a mindfulness program in a school setting. Section five included one question only.

Section six-Knowledge, beliefs, and perspectives about the skills developed from mindfulness: Section six included one question related to primary teachers' knowledge, beliefs, and perspectives about which skills teachers believe are cultivated from practicing mindfulness. This question included the same predetermined list of 11 skills from question 21. Participants could select multiple

answers, and included the option to identify any other skills they believed were cultivated from mindfulness practise.

Section seven-Feasibility for implementing a mindfulness program: Section seven asked participants to consider how feasible it would be for them to implement a mindfulness program in the classroom. They were asked to consider this in light of the amount of non-contact time required to prepare such a lesson, either 15 or 30 minutes per week, and how much time would be feasible to dedicate to a mindfulness program within the curriculum, either one or two lessons per week. The second question included in section seven asked what barriers teachers believed they could encounter if they were to implement a mindfulness program in the classroom. Teachers could select multiple choices from a predetermined list, and add their own response. Section seven included questions 23 & 24.

Section eight-Support required for promoting the use of mindfulness in the classroom: Section eight asked teachers if they would be willing to participate in professional development related to teaching mindfulness, what support they would need to implement a mindfulness program, and identify what would motivate them to implement a mindfulness program in their classroom. Section eight included questions 25 – 27.

Section nine-Your final thoughts: Section nine asked teachers if they believed schools should provide mindfulness in the classroom. Participants were then invited to share any other information they believed was important in relation to their knowledge, beliefs, and perspectives about mindfulness in schools. This section included questions 28 – 30.

Lastly, section 10: Thank you for participating in this survey: This section thanked the participants for the time taken to complete the survey, concluding the survey (see appendix C for a copy of the survey).

Validity

    Content validity.

Content validity ensures "the full content of a conceptual definition is represented in the measure" (Punch, 2014, p 239). In the present study content validity was established by ensuring the survey is representative of all the research questions. To establish content validity of this survey, each question was considered and an agreement reached about what amendments were to be made both prior to and post piloting the survey by discussion with the researcher and her two supervisors. Discussion included validity of each question in relation to the overall three research questions and validity of response options in relation to the survey questions themselves.

    Construct validity.

Construct validity is achieved when the survey successfully measures what it aims to measure (Cozby, 2007). In this instance, primary teacher knowledge, beliefs and perspectives about mindfulness in schools. Construct validity can be established through piloting the survey (Punch, 2014). This survey was piloted with a small sample of primary teachers with varying experience who were asked to feedback on the structure of the questions, the proposed responses, sequence of the questions, time taken to complete the survey, and any other feedback they considered relevant to improving the survey overall, ensuring it measured what it aimed to measure. Based on the feedback received from the pilot sample, minor alterations were made, as discussed earlier in the survey design section.

Survey Dissemination

The principal of each of the 60 schools randomly selected for inclusion in this study were contacted directly by the researcher, to invite each school's primary teachers to participate in this survey in week one. Principals were contacted through an email invitation which included the full information sheet, as well as the electronic link to the online survey (see appendix A & B). The principal of each invited school was asked to forward this invitation email, including the attached information sheet, to all the primary teachers in his/her school. The researcher followed up with

the principal with one email in week two and a further reminder email in week three resulting in a three-week time frame for data collection. At the end of the three-week data collection period it was decided by discussion between the researcher and her two supervisors that the response rate had reached an acceptable level for meeting the purpose of this study, resulting in a decision to close the survey in the intended timeframe and move onto data analysis.

Data Analysis

Both quantitative and qualitative data were collected from the survey for analysis. The quantitative survey results were analysed by descriptive statistical analysis, (calculated totals, percentages, and means) using Microsoft excel software. Some of the benefits of using quantitative methods for data collection and analysis are that the data collected can be transformed into descriptive numerical data to describe the totals, means and percentages of the sample in a systematic way, allowing standardisation, and objective comparisons of the data (Braun & Clarke, 2006), particularly useful for describing the sample of a study. To strengthen the quantitative data, qualitative questions were embedded in the survey, following the quantitative questions. This allowed a respondent to explain, using their own interpretations and explanations, what was meant by their response to a quantitative question.

The entire data set was exported from the Survey Monkey platform to Microsoft excel software. The quantitative data set was transformed into descriptive numerical data for describing the totals, means and percentages of the sample. Quantitative responses to survey questions within the survey allowed objective comparisons of the data set, and discussion about similarities and differences across the data set.

Qualitative data from the survey were analysed using descriptive thematic data analysis, which included following Braun and Clarke's (2006) six phase thematic analysis procedure as seen below. This thematic analysis process is flexible, allowing the researcher to be led by the responses for identifying, analysing and reporting patterns and themes within data and interpreting aspects of the research

topic (Boyatzis, 1998; Braun & Clarke, 2006). The recommended six phase thematic analysis procedure was not linear by nature. Rather the researcher moved through a phase, and returned to others as required until satisfied that a narrative has been told through the analysis of qualitative data, extending past simple descriptions of data to explanations and interpretations of their meaning. Below describes the six-phase thematic analysis procedure by Braun and Clarke, (2006):

1. familiarise myself with the data

2. generate initial codes

3. search for themes

4. review themes

5. define and name themes

6. produce the report

Another reason for using thematic analysis was that the process is easily learnt and implemented. The findings of the research are made accessible to the general public, summarising key findings and themes from a large body of data (Braun & Clarke, 2006; Punch, 2014). This method can also highlight similarities and differences across the data set including unanticipated findings, suited to social and psychological interpretations of data (Braun & Clarke, 2006; Punch, 2014). For these reasons, descriptive thematic analysis is well suited to this study.

Initially descriptive codes were used to organise interesting features of the data, then overarching themes were combined to identify final themes. These overarching themes were refined following two levels of review: 1) at the level of the coded data extracts, ensuring the extracts form a pattern which relates to the overarching theme; and 2) at the level of the entire data set, ensuring the themes match the overall data set. Once the themes were well defined, they were named, ready for presentation within the overall data analysis. The findings were reported in a way which told a story related to the overarching themes and to the overall research questions, using data extracts for exemplification (Braun & Clarke, 2006).

Thematic analysis acknowledges the active role the researcher plays in the ways the researcher's own beliefs, interests, preconceptions, theoretical and political alignments influence all stages of data collection, including the processes for

analysis and dissemination (Braun & Clarke, 2006). Given that the researcher personally practices mindfulness, it is relevant to acknowledge this has likely influenced the researchers interest in this topic, the questions asked, and data selected for inclusion for analysis and dissemination. To overcome potential weakness in the interpretation of the qualitative data, interrater checks were used to ensure the analysis was representative of the data. Two supervisors reviewed the overall data set and proposed themes to check for any omissions or additions required by the researcher.

Ethical Considerations

This project was evaluated by peer review and judged to be low risk, (see Ethics Notification Number: 4000018124: appendix D). Consequently, it was not required to be reviewed by one of the University's Human Ethics Committees. The researcher named in this document was deemed responsible for the ethical conduct of this research. The low risk notification for this project is valid for a maximum of three years. All survey records will be kept confidential, only accessible to the researcher and her two supervisors. The data will only be used for the specified purpose of the study and will be stored electronically for up to 5 years (on Survey Monkey and on the researchers' personal computer), then destroyed by deletion by the researcher. Findings will be disseminated via thesis and no data will be re-used for other purposes.

Informed consent was given in this study in a number of ways. First, the invitation to participate to primary teachers was in the form of an email, forwarded to the teachers from their school principal, accompanied by the full information sheet, including the online survey link (see appendix A & B). Second, on receipt of the invitation, following the online survey link, primary teachers provided their informed consent to participate in this study by completing any question within the survey (see section one: appendix C). A summary of findings was offered to participants at their request. Given the sample was from the adult population, it was assumed by the researcher those adult teachers being surveyed were able to understand the purpose of the study, what was required of participants, and to

provide their own informed consent. It was made explicit to participants at the point of invitation to participate, that participation was anonymous, on a voluntary basis, and that participants had the right to decline or withdraw from participating at any point in time without explanation. Participants were fully informed that approximately 15-25 minutes of their time was required to complete the survey. No payment was offered for participation. No school nor teacher was individually identified. No deception was required nor was there any conflict of interest to declare. There were no cultural or social sensitivity issues to be addressed.

Summary

This study used a mixed-method approach within an online survey as the method for collecting data for this study. The survey includes ten sections. Throughout each section both closed and open-ended questions were utilised for meeting the aim of the study. Following this, validity measures were discussed, then data collection and data analysis utilised for this study were described. Lastly, ethical considerations of this study were completed. The survey was conducted with a final 45 participating teachers who indicated they had not been previously involved in the training or implementation of a mindfulness programme prior to completing the survey. The following chapter presents the results of the survey in relation to the research questions.

Chapter 4: Findings

This chapter outlines the findings of this study. Findings are reported in sections which align with the research questions. The chapter starts with information about the sample. This is followed by a section that reports on teachers' knowledge, beliefs, and understanding about the roles of mindfulness in schools. Teachers' views about the skills developed from mindfulness practise are then explored before the teacher's perspectives about implementing a mindfulness programme in schools is described. Following this are teachers views and perspectives about mindfulness and personal practice. The chapter ends with a summary across the research questions. It is important to note that participants who responded to the survey had the right to skip any question. Responses to individual questions are reported by the number of responses received for each question.

Sample

The online survey was made available to a total of 60 primary schools, consisting of 20 primary schools from each of the three regions selected for inclusion of this study, located in NZ; Christchurch, Waikato and Taranaki. The survey was accessible to potential respondents for three weeks. In that time, 80 participants responded to the online survey.

Participant response data were analysed to identify completion rates and whether participants indicated in the affirmative to the disqualification question. Nineteen respondents answered 'yes' to the disqualification question, identifying they had previously participated in the training of or implementation of a school-based mindfulness program and are not included in the findings presented. Other data excluded from the data analysis were from surveys deemed to be incomplete, based on respondents who did not complete survey items beyond the demographic questions. This equated to 16 respondents.

The final number of respondents included in the sample for analysis was 45, consisting of 41 fully completed surveys and 4 surveys partially completed,

including up to between Q21-Q24. These responses were included in the data set for analysis up to their end points.

Consequently, the resulting sample consisted of a total of 45 primary teachers, including 40 females (89%) and 5 males (11%). Of the 45 participants 71% identified as being NZ/European, 4.5% identified as being NZ Maori, 2% were Asian, 4.5% indicated 'other' ethnicity, while 16% identified as being more than one ethnicity, and 2% identified as being more than two ethnicities. Further data analysis showed the percentage of respondents across the three regions were dispersed with 35.5% from Waikato, 20% from Canterbury, and the remaining 44.5% from Taranaki. Most of the 45-respondents worked in rural schools, accounting for 61% of the sample, the remaining 39% said they worked in an Urban school. These schools were described by the 45 respondents as being 91% stated owned, 7% were integrated schools, while only 2% were said to be from a private school. These schools were reported by 44 respondents to range from decile 2-9 with majority of the teachers working in decile 5 schools (23%); 9% said they worked in decile 2, 6, 7, and 8 respectively, 7% said they worked in decile 4 and 9 schools respectively, while the remaining 11% of respondents indicated they work in a decile 3 school.

Across the 42 teachers who indicated their teaching experience, there was a mean of 18.15 years teaching experience. The year level teachers were currently teaching included new entrant to year eight according to 40 respondents. Of the 40 respondents 22.55% said they currently teach one year level, 47.5% indicated they worked across teaching two year levels, 7.5% worked across three year levels, 2.5% work across four and five year levels, 10% reported they worked across as many as six year levels, and finally, 7.5% respondents said they work across seven year levels.

Respondents were asked if they had heard of the term 'mindfulness' prior to participating in this survey, 87% had heard of the term 'mindfulness' prior to participating in this survey, while 13% of the respondents had not. Respondents were then asked to describe in their own words what mindfulness is. The following words were used to define what mindfulness is by 38 respondents. *Self-awareness* was used the most to describe mindfulness by respondents (53%), followed by

being present/in the moment (42%) and *having an awareness of others* (29%), *experiencing relaxation* (18%), and *paying attention* (10.5%) were also among the top five words used to describe what mindfulness is.
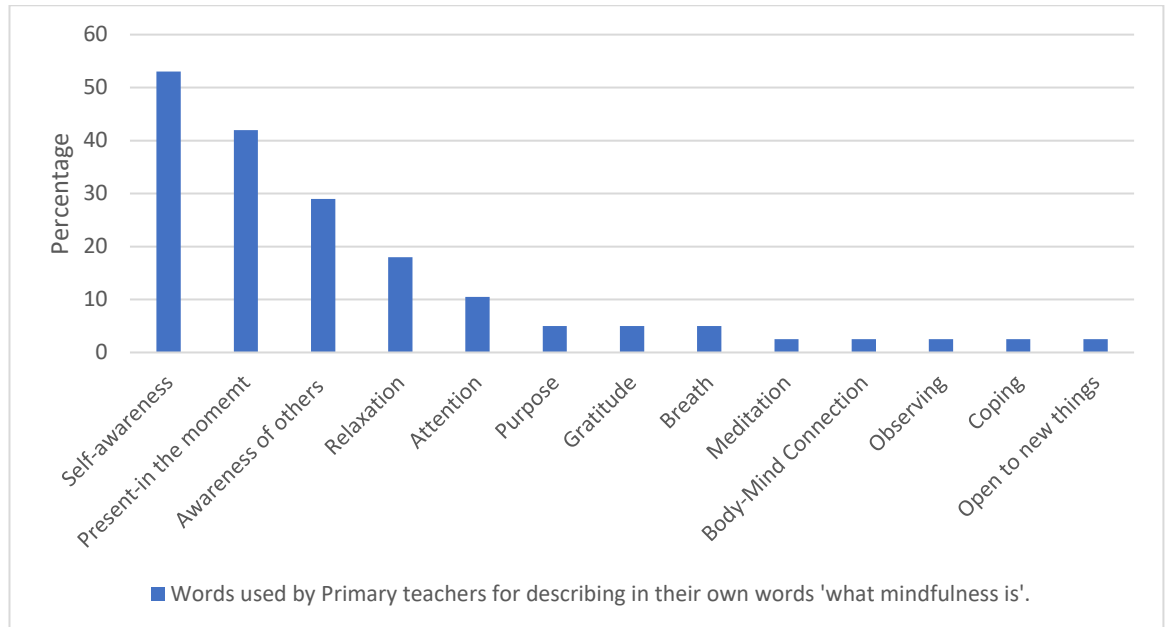

Figure 2. Words used by respondents for describing mindfulness.

Note. Figure two N=39.

Respondents were provided with the following definition of what mindfulness is. For the purpose of this study mindfulness was defined as "paying attention in a particular way; on purpose, in the present moment, and non-judgementally" (Kabat-Zinn, 1994, p. 4). Based on this definition respondents were asked if they currently practice mindfulness personally. Of the 44 who responded to this question, 66% indicated they do currently practice mindfulness based on the provided definition, while 34% said they do not currently practice mindfulness.

Mindfulness in Schools

Research question one aimed to gain a better understanding of what teacher's knowledge, beliefs, and understandings were about the potential role of mindfulness in schools. When asked if respondents believed mindfulness should be taught in classrooms, 75.5% of the 45 respondents indicated mindfulness should be

taught in classrooms, while 18% indicated mindfulness should not be taught in classrooms. A further 6.5% said they did not know. Respondents further qualified their responses with an explanation for why they believed mindfulness should or should not be taught in the classroom. Thematic analysis resulted in three themes emerging, consisting of those responses consistent with yes, no and I don't know.
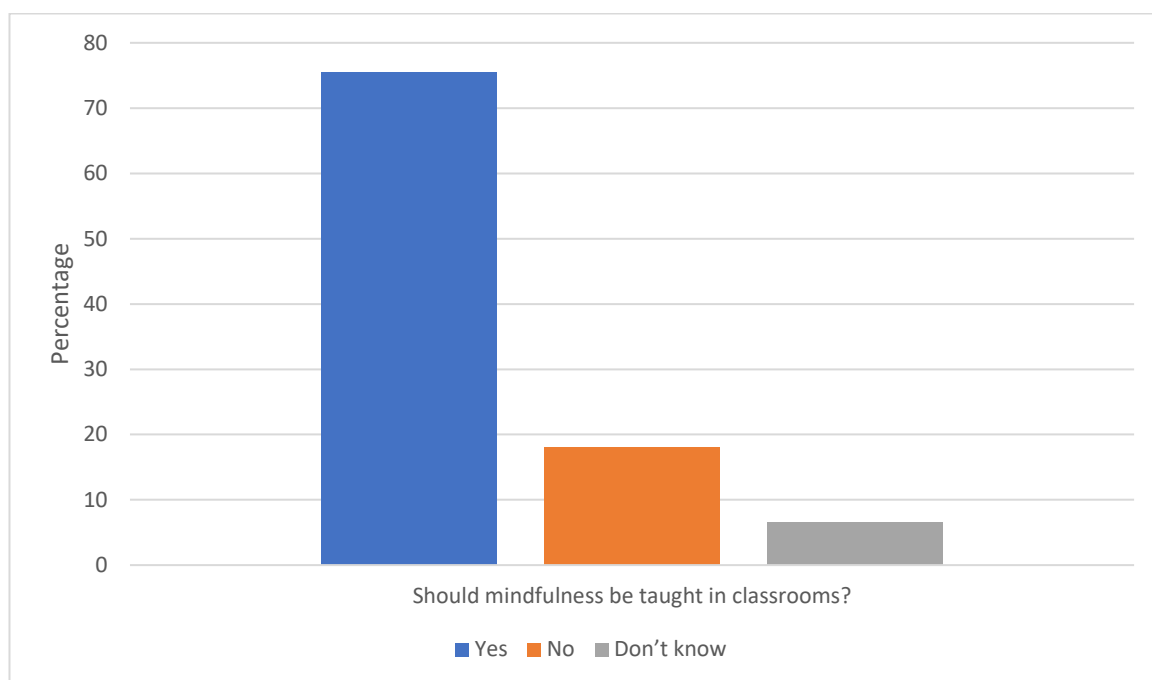

Figure 3. Teachers responses to 'should mindfulness be taught in classrooms?'

Note. Figure three *N=45.*

Within the yes mindfulness should be taught in schools group, three themes emerged. The most common theme was that primary teachers believe mindfulness should be taught in classrooms for the purpose of meeting student's needs, evidenced in explanations such as "*To enable students with a lack of emotional self-regulation the ability to gain useful problem-solving skills*" and "*Many children are coming to school without any coping techniques or resilience. Mindfulness may help to address these needs at an earlier age.*" '*Other*' responses indicated teachers believed mindfulness should be part of the school wide values "*It should be embedded in everything we do*" and *"*should be modelled and integrated into the school's values*".* In addition to benefiting students, some teachers believed mindfulness should be taught for the greater good of society, stating *"Mindfulness*

would enhance children's understanding of values and create a more caring community that responds to people's identities and self-esteem." Teachers believed mindfulness should be included in the school curriculum by having it *"integrated into lessons such as PB4L, Health"*. Another teacher said, *"I believe it is an extremely important part of building mental, emotional and spiritual health and wellbeing and therefore should be a part of the curriculum."*

Group two consisted of those responses consistent with teachers who believed mindfulness should not be taught in schools; three themes emerged. There were a few teachers who indicated mindfulness should not be taught in the classroom, further explaining they felt this was the parent's responsibility, "*I see this as a parent's responsibility and a family choice*". Not surprising other teachers felt there was not enough time/space in the curriculum to fit it in *"This is difficult as I know from experience there is soooo much we are expected to teach at school, as a subject no, not in "crowed curriculum"*. One teacher felt *"there are other less prescriptive ways"* for teaching mindfulness.

Lastly, group three, those who were unsure if mindfulness should be taught in schools, resulted in one theme. These teacher's descriptions indicated being undecided stating *"This is not a yes/no response. Depends on the purpose"* and *"I'm not sure, I can see it could be beneficial but are also aware teachers are already overloaded with content to deliver."* Despite some mixed perspectives about the role of mindfulness in schools, overall, the majority of teachers believed mindfulness should be taught in classrooms to benefit students.

Moreover, the majority of the 45 respondents who responded to being asked if they believed mindfulness was beneficial for students to practice indicated they believed mindfulness could be beneficial for students to practice (91%), while 4.5% believe it is not. The remaining 4.5% of respondents were unsure. Thematic data analysis of the 33 open-ended responses further explaining why respondents believed mindfulness could be beneficial for students or not resulted in 7 themes emerging from the data set. These included six themes related to the benefits for students who practice mindfulness and the last theme was consisting of two teachers being undecided.

The following benefits teachers believed students gained from practicing mindfulness included Theme 1: Social/emotional benefits where teachers said, "*It could potentially teach children valuable relaxation and calming techniques which could be beneficial to many children including those who can be angry or anxious in their daily lives.*" Theme 2: Life skill benefits *"Mindfulness can benefit children by making them attend to detail and think about things in a non-judgemental way, different from other world views they may have already assumed."* Theme 3: Academic benefits, *"Yes, if the students are in a calm, present state of mind rather than being anxious or distracted about the past or the upcoming events in the future they are more receptive to learning new concepts. Mindfulness improves the students' behaviour and focus so they are more engaged during the learning experience."* Theme 4: Psychological benefits *"It allows them to become resilient and have coping strategies".* Theme 5: Benefits across settings and life span, *"Would benefit students with extreme negative behaviours in and outside of classroom"* and *"If children learn to practice mindfulness at an early age, they can take it through to their adult life and live in the present."* Theme 6: Individual benefits where by the benefits a student gains "*Depends on the student*". Lastly, Theme 7: I don't know, where one teacher indicated they did not feel informed on the subject of mindfulness to form an opinion on what benefits a student could gain stating *"I don't know enough about mindfulness to know the benefits for students."*

When asked who respondents believe should be responsible for teaching a mindfulness program, if one was to be implemented in a classroom setting; of the 43 who responded, the most common response was that the teacher should be responsible for implementing a mindfulness program in the classroom (67.5%), followed by an outside agency facilitator (26%), then the School principal (4.5%) and School counsellor (2%).
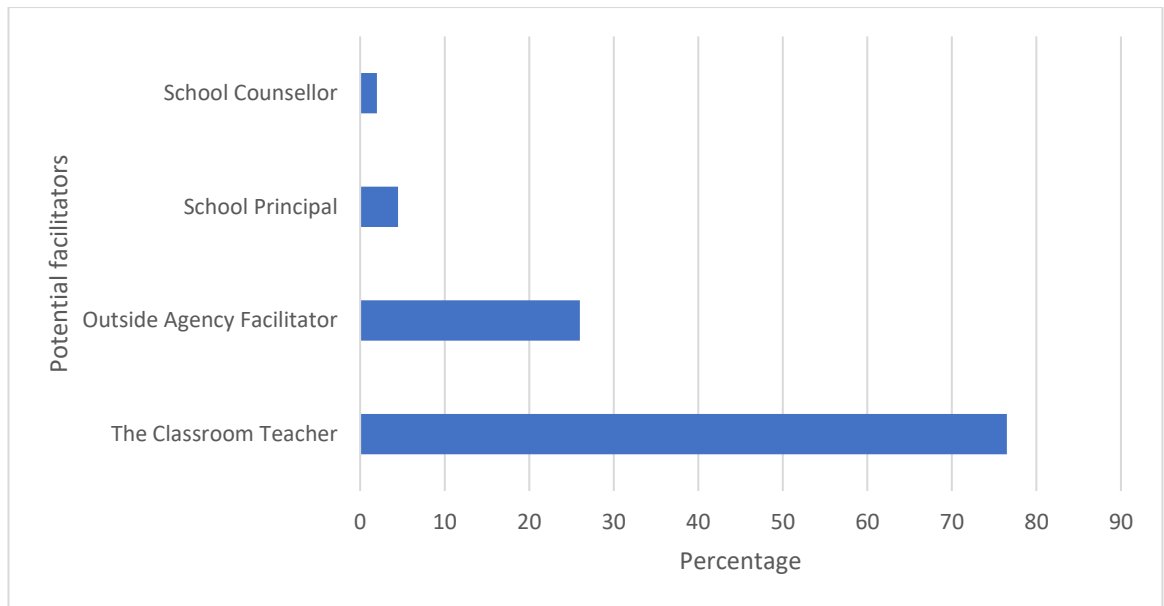
Figure 4. Who primary teachers believe should be responsible for implementing a mindfulness program in the classroom.

Note. Figure four *N=43.*

Forty-three respondents further explained why they selected the person they did as who they believe should be responsible for implementing a mindfulness program in a classroom setting. The overriding explanation for selection of the classroom teacher was that the classroom teacher knows the students best *"They work with the student every day and know them best."* Other explanations given as to why classroom teachers should implement a classroom mindfulness program were *"The classroom teacher is trusted and has a good rapport with each student which is important when introducing a new programme into the classroom setting. They know the children's individual needs and are able to modify the programme for the students when necessary."* and *"The classroom teacher comes across situations regularly that call for mindfulness. They are usually the first point of call when there is a friendship issue etc and also will notice any personal struggles the children are having more than an outside facilitator."*

Theme two centred around teachers lack of confidence and knowledge of implementing a mindfulness program, but highlighted their willingness *"I wouldn't know where to start, so would need the guidance of an expert initially. Once*

comfortable with the teachings, I would expect to be able to implement the programme myself." The most common explanation for why teachers believe an outside agency facilitator should be responsible for implementing a mindfulness program in the classroom was that teachers' preference was to utilise a person who has the knowledge, expertise and time for doing so *"I think it would be better if an outside 'expert' was to come in and teach it with the support of the classroom teacher."* and *"Teachers have enough demands on their time."*

A lack of time for adding to the demands of the school curriculum was also an explanation given by a teacher who believed the School principal should take responsibility for implementation of a mindfulness program in the classroom: *"If the principal feels it is best for the school to implement then he/she can lead the program. Teachers already have a lot to do and to leave it to busy teachers it may fall on the to do list."* No explanation was given as to why one teacher believed the School counsellor should be responsible for implementing a mindfulness program in the classroom.

In relation to the willingness of respondents to implement a mindfulness program in the classroom themselves, the positions taken were definitive. In the case of 43 respondents 79% indicated they would be willing to implement a mindfulness program in their classroom, 21% would not be willing to do so. Thematic analysis of the data related to teacher's explanations as to why they would or would not be willing to implement in a mindfulness program in their classroom resulted in three groups of responses, with group one aligned with responses consistent to responding 'yes' I would be willing to implement a mindfulness program in the classroom. Group two consisted of responses which were consistent with 'no' I would not be willing to implement a mindfulness program in the classroom, and group three consisted of any responses consistent to 'I don't know'.

Within group one, five themes emerged including theme one: Yes, in the best interest of students, *"I think it will help my students. It will help them grow and be more aware of others… there are people that are suffering or need our help at times. It will teach them tools that they will be able to use for the rest of their lives."* Theme two: Yes, if it helps teachers themselves, *"Yes, I think it would of benefit to*

all (students and teachers) to practise mindfulness within the school environment. It doesn't need to take a lot of time per day, it just needs to be a consistent tool that students/teachers can use to manage behaviour/stress levels and enhance learning opportunities" and *"It would help with teaching/learning and relationships".* Theme three: yes, for the governments benefit, "*As a beginning teacher, and mother with life experiences, I have noticed an increase in anxiety to our children because of the huge expectations on them and teachers. Perhaps the government would benefit from this!*" Theme four: yes, with conditions…., *"Yes would like it connected to our culture first, not an add on",* and *"Yes with a Christian slant on it, fitting in with pray and meditation".* Theme five: Yes *"yes, I believe it's important"* and *"yes absolutely".*

Group two consisted of three themes, including, theme one No, not enough time, "*I can't even fit in the things I'm supposed to fit in".* Theme two: No, no need or purpose, *"not at this time as I believe it is not necessary".* Theme three: No, "*No, better to use outside expert and teacher supports this".* Group three resulted in one theme: Neither yes or no, *"depends on purpose".*

Again, despite the mixed perspectives, teachers were, overall, willing to implement a mindfulness program in the classroom in the best interest of the students, with comments such as "*help kids grow and be aware of others, and a life-long skill", "to support students own understanding of mindfulness",* and *"help kids be calmer and a peaceful environment".* Those respondents who indicated they were unwilling to implement a mindfulness program in their classroom mainly explained this response as being due to a lack of time to do so, *"I can't even fit in the things I'm supposed to fit in",* and "*not an extra!!!!!!! we already include individual caring."*

To further explore teachers' views about mindfulness in schools, the survey included a question about whether schools should be offering a *formal* mindfulness program. Of the 39 respondents who responded, 72% believed schools should offer a formal mindfulness program, while 28% believed schools should not offer a formal mindfulness program.

Thematic analysis of the question related to if teachers believe schools should provide a formal mindfulness program resulted in two main groups emerging, group one consisting of those respondents who believed 'yes' schools should offer mindfulness and group two, included those who reported 'no'. Group one resulted in three over-arching themes. Theme 1: Help students, including assist in developing their social skills, coping strategies, relaxation techniques, being alert, present, and reduce student's anxiety, increase academic achievement, focus and well-being, and teach students life-long skills. Evidenced by comments *"Help students with coping… help students to relax, help students be alert, Help students be present, reduce student anxiety.", "Help with social skills.",* and *"Help students achievement, helps students focus."* Theme 2: optional for students, with one teacher stating *"it should be as a choice only"*, Theme 3: Help teachers to cope with stress, manage classroom behaviour and set classroom values *"Helps teacher manage behaviour management", should be part of establishing a classroom climate"* and *"… helps teachers with coping.*"

Group two resulted in four themes emerging, including theme 4: No due to a lack of time *"As already stated. What will we drop to fit this in?",* Theme 5: It is the parents responsibility *"We already have to include so much, when do the parents take responsibility for this?",* Theme 6: must be part of school culture *"It needs to fit the school culture and be initiated through positive engagement, not forced onto a school as another thing to do",* and theme 7: Not suitable in school setting, *"I don't think schools are the right setting for this type of programme."*

Mindfulness and the Development of Key Skills

Research question two aimed to gain a better understanding of what teacher's knowledge, beliefs, and understandings were about skills developed from mindfulness. To identify the skills that teachers' value, respondents were first asked which of the following skills, if any, do you believe are important for students to demonstrate in a classroom setting? A pre-determined list of skills was provided (see question 21: appendix C). Figure 5 displays the skills identified by 45 respondents as important for students to demonstrate in a classroom setting. As

shown 98% of respondents indicated emotional regulation and resilience were important, followed by social skills (95.5%), ability to show kindness (93%), ability to show sustained attention (focus; 91%), ability to show compassion (89%), ability to consider appropriate responses before reacting impulsively (awareness; 87%) and ability to ignore distractions (87%). The ability to relax, the ability to show gratitude, and the ability to switch attention (flexible) were identified by 85%, 80%, and 78% of respondents as being important, respectively.
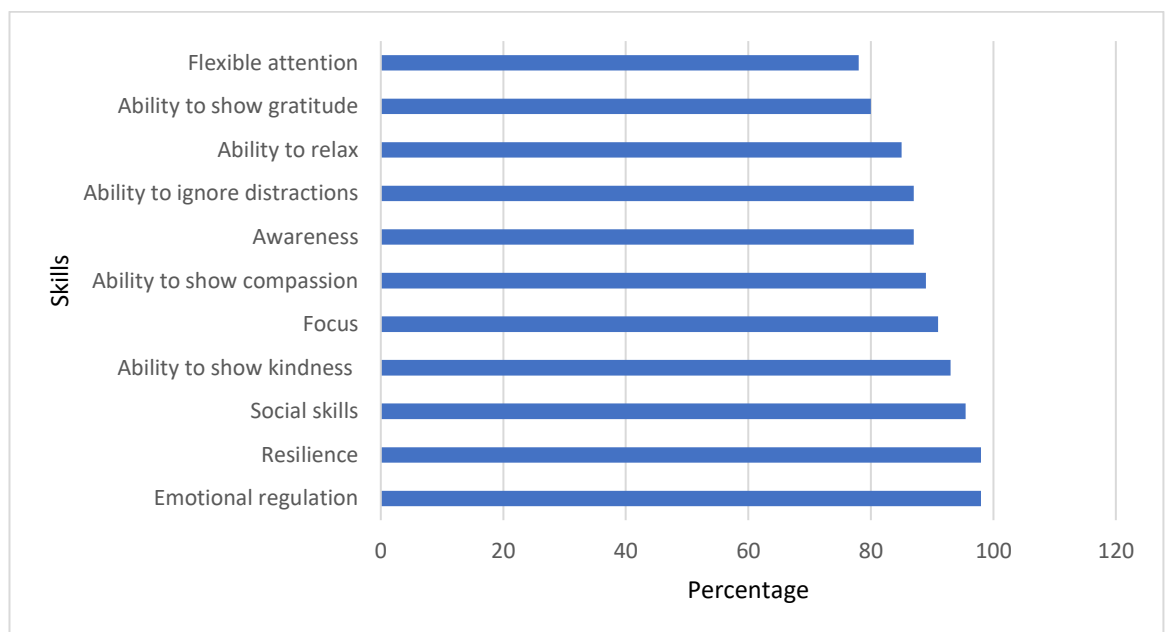
Figure 5: The skills primary teachers reported as being important for students to demonstrate in a classroom setting.

Note. Figure five *N=45.*

The same list of skills was then used to ask teachers to select which skills, if any they believed students develop from practicing mindfulness. Figure 6 presents the results for the 44 respondents who responded to this question. The ability to relax was identified by 79.5% of respondents, followed by emotional regulation (77%), ability to consider appropriate responses before reacting impulsively (awareness; 70%), ability to show sustained attention (focus; 68%), resilience (66%), ability to ignore distractions (65%), and the ability to switch attention (flexible; 54.5%). Less than half the respondents believed that ability to show kindness (48%) and social

skills (48%) and the ability to show compassion (45%) and gratitude (45%) were developed through mindfulness.
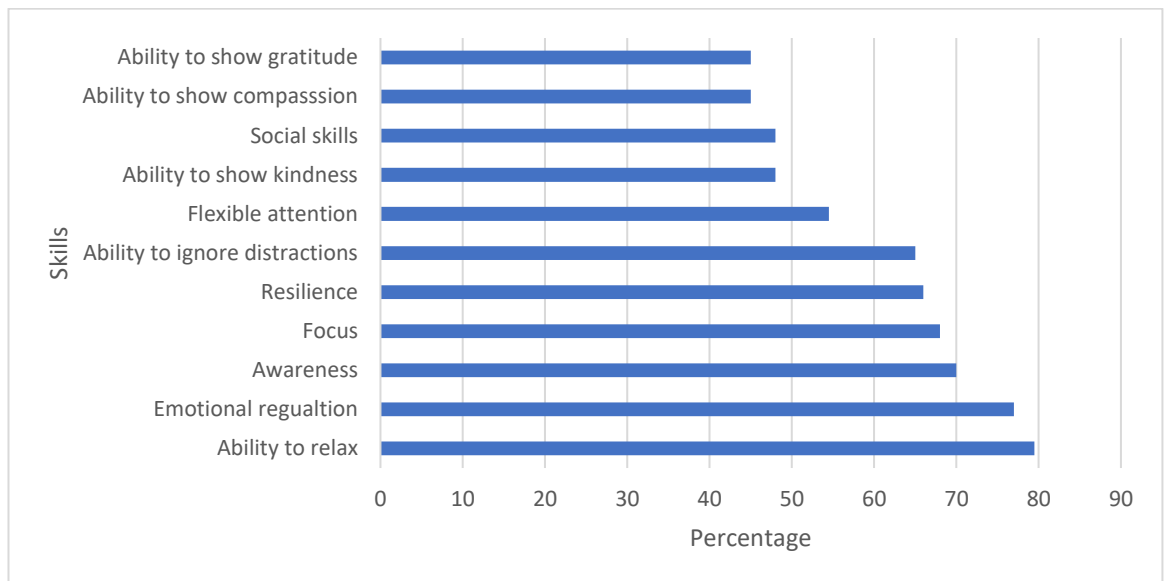

Figure 6: The skills teachers believe students develop from practicing mindfulness.

Note. Figure six *N= 44.*

Implementing Mindfulness in Schools

Research question three addressed teacher's knowledge, beliefs, and understandings about implementing mindfulness in schools. As noted earlier in the chapter 75.5% of the 45 respondents indicated mindfulness should be taught in classrooms, 67.5% of the 43 respondents thought the teacher should be responsible for implementing a mindfulness program in the classroom, and 79% of the 43 respondents indicated they would be willing to implement a mindfulness program in their classroom.

To understand what type of support teachers would need to implement mindfulness in their classroom, respondents were given a list of possible supports to choose from. The most common support that 41 respondents said they would need to implement a mindfulness program was both professional development / training by group workshop (71%), and a flexible program which allowed mindfulness to be embedded into the school curriculum (71%) rather than a

differentiated, formal program (27%). Following this, teachers reported they would require the principals' endorsement (66%), time in the classroom schedule one class period per week (54%) and parents' endorsement (54%) to implement a mindfulness program in their classroom. Forty six percent of teachers believed their own personal practice of mindfulness would provide them with support to implement a mindfulness program (46%). In addition, a positive attitude about mindfulness from the students (39%) was believed to be a supporting factor, highlighting the need for teachers to have student 'buy in'.

When asked if they were willing to participate in professional development for learning how to teach mindfulness in their classroom, of the 40 primary teachers who responded, the majority of respondents (77.5%) indicated they would be willing to participate in professional development for learning how to teach mindfulness in their classroom, while 22.5% indicated they would not be willing to do so.

Teachers were also asked what would motivate them to implement a mindfulness program in their classroom. The most common motivating factor for the 41 primary teachers who responded was the belief it would help them as a teacher in classroom/behaviour management (68%), followed by three equally motivating factors, free training to learn how to implement a mindfulness program in my classroom (66%), the knowledge and satisfaction that my students would benefit from participating in a mindfulness program in my classroom (66%), and the belief it would help me as a teacher in supporting student's academic achievement (66%). Teachers' belief it would support student's academic achievement and the desire to add the skill to their toolbox as a teacher were identified by 59% and 58.5% of respondents respectively. Receiving paid training to learn how to implement a mindfulness program in my classroom (41%) was reported to be motivating. Fewer respondents indicated that the principal's endorsement (32%), 1:1 consultation support, including observation and feedback (24%), principals request (17%), and parent's endorsement (12%) were motivating factors.

Teachers were asked to state how feasible it would be for them to use either one or two class periods per week for implementing a mindfulness program, and either 15 or 30 minutes preparing materials to teach a mindfulness program per week. Figure 7 shows the responses of 45 teachers who rated their perspective for the feasibility for implementing a mindfulness program. As shown, respondents indicated it would be very feasible to devote one class per week to implement a mindfulness program (42.5%) and devote 15 minutes preparing materials to teach a mindfulness program per week as very feasible (41%). Respondents indicated it was not feasible (61.5%) to devote two class periods per week to implement a mindfulness program, and not feasible (57.5%) to devote 30 minutes preparing materials to teach a mindfulness program per week. Results suggest teachers believe it is very feasible that teachers could find the time to both prepare and implement a mindfulness program one lesson per week, and find 15minutes preparation time per week to do so, while two lessons and 30 minutes preparation time per week was believed to be not feasible for primary teachers.
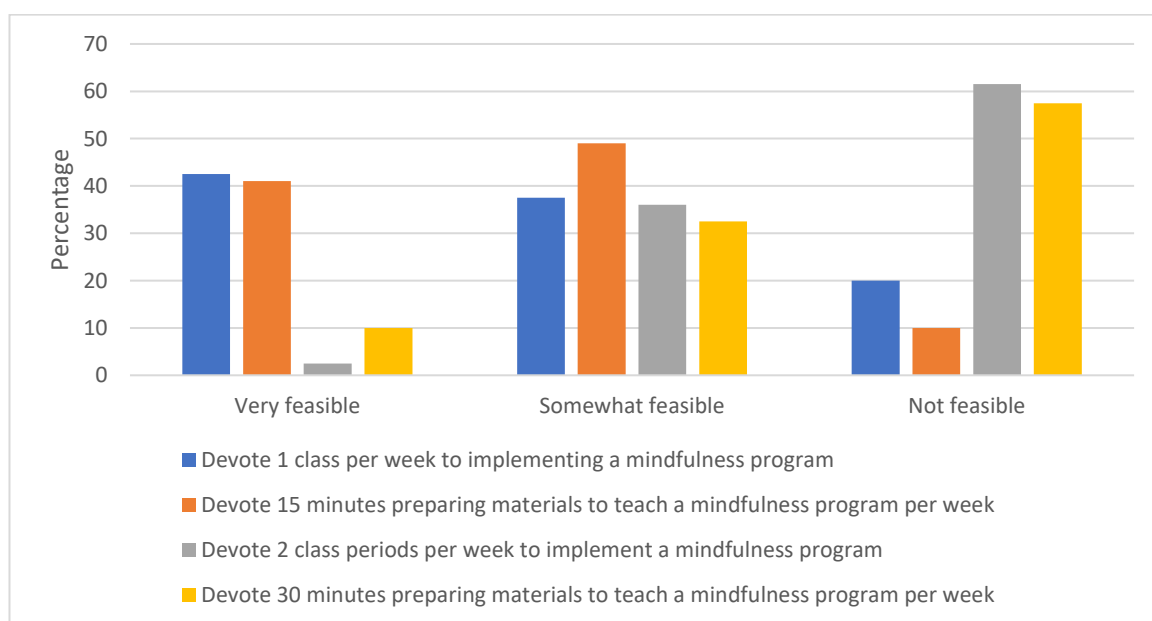

Figure 7: Feasibility for implementing a mindfulness program.

Note. Figure seven *N=45.*

Teachers were then asked to identify which, if any, barriers they believed they would face if they wanted to implement a mindfulness program in your classroom. Of the forty-two respondents 71% reported lack of time a barrier to implementation due to current curriculum demands. This was followed by obtaining access to training for how to implement a formal mindfulness program or some form of support (67%), and lack of access to a mindfulness program (62%). Lack of time to prepare was also considered a by 48% of respondents. Fewer respondents identified obtaining parent's endorsement (28.5%) and negative attitudes of students (14%) as barriers.

Respondents made other comments about what barriers they believed they would face if they were to implement a formal mindfulness program in their classroom (5%), including *"I feel this would be an amazing tool but may be better approached as an integration in what is currently happening in the classroom as opposed to a programme"* and *"resources need to be made commercially and made free to schools."* A few teachers also indicated that obtaining the principal's endorsement (7%) and negative attitudes of other staff (5%) were barriers to implementing a programmes. Overall, 5% of primary teachers reported there are no barriers.

Views and perspectives of mindfulness and personal practice

One notable aspect about the favourable views of mindfulness in schools from the present study is that although results are from a sample of teachers who had not previously participated in the training of or implementation of a school-based mindfulness program, 66% of the sample reported they currently personally practice mindfulness based on the provided definition. To address this characteristic of the sample in preparation for unpacking and discussing the findings, the extent to which the 66% of respondents who practiced mindfulness personally influenced the positive trends in the findings was examined by the researcher. Analysis suggested that the 66% did not overwhelmingly affect the results of this study such that those who did not practice also showed favourable views. For example, of the 34% of respondents who do not personally practice mindfulness, 60% believe mindfulness should be taught in schools.

Results of this study did show support for mindfulness to be taught in classrooms by both teachers who do and do not personally practice mindfulness. More specifically, 83% of those teachers who reported they do practise mindfulness said they would require a flexible program which allowed mindfulness to be embedded into the school curriculum to implement such a program successfully; all of those teachers (100%) who reported they do not personally practice mindfulness said the same.

Like any new program, training about content knowledge and best practise for successful implementation is critically important. This study found 86% of those teachers who personally practise mindfulness reported they would require some training or some form of support if they were to implement a mindfulness program successfully. Similarly, 100% of teachers who do not personally practice mindfulness said the same. Thus, teachers who practice mindfulness themselves still recognised the importance of being trained in ways to teach others mindfulness, and not solely rely on their own practice or experience.

Overall, teachers in this study who identified as being personal practitioners of mindfulness, and those who were not both indicated they would be willing to implement a mindfulness program in their classroom motivated by their reported beliefs this would be in the interest of the students and helpful to teachers in managing their stress and improving classroom management.

Summary

The results from the present study show that primary teachers understand what mindfulness is, and believe it can be beneficial to students for developing valued skills in the classroom. Results suggest that teachers are willing to train in the implementation of mindfulness program in class, and in their view, believe classroom teachers should be responsible for implementing such programs. Teachers would prefer to have a flexible program that could be embedded into the current curriculum demands.

Teachers' perspectives about the skills that mindfulness fosters showed that all of the skills that teachers perceived as being fostered by students who practise mindfulness, are consistent with the same skills teachers also indicated were valuable for students to demonstrate in a classroom. Notably, those skills most related to social skills, managing self, relationships with others and adopting an attitude of kindness and compassion clearly ranked most important compared to those skills related to academic achievement for students to demonstrate in a classroom setting. For example, more than ninety-five percent of all teachers perceived emotional regulation, resilience and social skills as being the most important skills for students to demonstrate in a classroom setting compared to the ability to switch attention (flexible attention) (78%) and being able to ignore distractions (87%).

Importantly, respondents reported relaxation, emotional regulation, awareness, focused attention, resilience and the ability to switch attention were the most likely skills teachers believed students would develop from practising mindfulness, closely followed by students developing the ability to show kindness, develop social skills, show compassion and gratitude.

Overall, the primary teachers' perspectives in the present study was that mindfulness should be taught in classrooms, and schools should be providing such programs. Participant teachers indicated that it would be very feasible for them to implement a time commitment of one class period per week for implementing a mindfulness program in the classroom, and 15 minutes for preparing teaching materials for a mindfulness program per week. Teachers are most motivated for implementing a mindfulness program in their classroom given they perceive mindfulness to be a useful tool for them as teachers in managing classroom behaviour, assisting students in academic achievement, and other perceived benefits for their students. The most common barriers to implementing a mindfulness program were identified as lack of time, access to training and access to a mindfulness program. Results from this study are further explored in the discussion chapter.

Chapter 5: Discussion and Conclusion

This study investigated teachers' knowledge, beliefs and perspectives about mindfulness in schools, the value teachers place on specific skills in the classroom, and if they believe mindfulness cultivates those skills in the classroom. Additionally, this study aimed to capture what support primary teachers believed they needed for promoting a formal mindfulness program in the classroom. This chapter discusses the findings identified in the previous chapter and explores these findings in relation to known literature in this area. Findings of this study suggest that the majority of teachers who responded to the survey believed mindfulness should be taught in classrooms, and schools should be providing such programs. Teachers also believed they are best positioned to prepare and implement a mindfulness program in their classroom, and that it is feasible for them to do so.

This chapter will discuss the key concepts which resulted from this study's findings. First, the significant influence teachers' beliefs have on whether or not new programmes are implemented successfully or adopted in the first place is discussed. Then the way in which teachers may be more motivated to provide support for a program when they believe a given program would be beneficial for their own teaching practices, and/or student learning outcomes is considered. This is followed by a review of the consensus among teachers for identifying skills cultivated by mindfulness as being valuable in a classroom and the extent to which this may relate to teachers' knowledge of the NZ curriculum is explored. To understand the potential drivers of program implementation, two additional topics are also discussed. First, the interface between successful implementation of a new program and teachers buy-in is explored in relation to when teachers are well informed on the potential benefits of a new program and requirements for implementation. Second, the need for training on how to teach mindfulness and a flexible mindfulness program for those teachers/schools interested in implementing a mindfulness program. Such training and flexible mindfulness programs are currently accessible to schools in New Zealand and may provide an important pathway for supporting student well-being. In concluding the chapter, limitations of

the study are discussed, along with key implications for practice and recommendations for future research are made. This chapter ends with a conclusion.

The importance and impact of teacher's beliefs and perspectives

Teachers' beliefs can have a significant influence on the successful implementation and sustainability of evidence-based interventions, including formal mindfulness programs in a school setting (Fashola & Slavin, 1999; Forman, Olin, Hoagwood, Crowe, & Saka, 2008). In this present study, teachers reported a favourable view towards mindfulness in schools. The majority of teachers in this study believed mindfulness could be beneficial for students to practice, that mindfulness should be taught in classrooms, provided by schools, and implemented by classroom teachers. These findings are consistent with other research about teachers' perceptions about mindfulness in schools (Biegel & Brown, 2010; Broderick & Metz, 2009; Flook et al., 2010; Huppert & Johnson, 2010; Joyce et al., 2010; Napoli et al., 2005; Schonert-Reichl & Lawlor, 2010). International literature reveals that teachers can become champions for those interventions and programs that they believe warrant their implementation efforts (Brophy, 2010). On the other hand, teachers' beliefs have also been reported as being one major obstacle encountered by program developers related to successful implementation of evidence-based programs in school settings when teachers did not believe the initiative was important or beneficial (Forman et al., 2008). Such findings demonstrate how teachers' beliefs and perspectives influence what learning occurs in the classroom, being either a supporting factor or barrier to the successful implementation of new teaching and learning approaches, including the implementation of a mindfulness program (Fashola & Slavin, 1999; Nespor, 1987). Because beliefs are a driving force of actions and teachers in the present study did view mindfulness practice in schools favourably, this suggests that teachers could be a supporting factor to contribute to the successful implementation of mindfulness programs in schools in New Zealand.

The connections between beliefs, motivation and skills teachers value in the classroom

In this study, teachers were mostly motivated by the belief that implementing a mindfulness program in their classroom will assist them in successfully managing classroom behaviour and supporting students' academic achievement and other related benefits. Other studies which have considered teachers perspectives about mindfulness in schools have also demonstrated teachers were motivated by similar beliefs that mindfulness practice in schools has the potential for cultivating the skills teachers value in a classroom context, including improved classroom co-operation, management and teachers awareness of effective teaching practices, improved academic performance, social competence, significant improvement in cognitive functioning including attention, working memory, reflectivity, and flexibility, concentration, focus and alertness, improved emotional- and self-regulation and reducing teachers stress by improving classroom and behaviour management (Albrecht et al., 2012; Broderick & Metz, 2009; Campion & Rocco, 2009; Flook et al., 2010; Harris et al., 2014; Joyce et al., 2010; Mclean, 2001; Mendelson et al., 2010; Napoli et al., 2005; Roeser et al., 2013; Schonert-Reichl & Lawlor, 2010).

One notable difference between the studies mentioned here and this present study is that teachers from the aforementioned studies had personally experienced by way of observation or implementation, the benefits students and teachers gained from participating in a mindfulness program in a school setting whereas, teachers from the present study had not already been involved in the training or implementation of any formal mindfulness based program in schools. For those teachers who have not engaged with mindfulness before, teachers' motivation for implementing a mindfulness program may be enhanced as they become better informed about mindfulness and its potential benefits based on either personal practice, involvement in training and or implementing such programs.

Understanding skills cultivated by mindfulness and links to the curriculum

Today's schools are required to support children and students with both academic skills as well as competencies which will help them to be successful in the work place (Education Review Office, 2013). This study found a consensus by teachers on the skills they valued as being important in a classroom setting. There was a high level of agreement across respondents (78%-98%) for each skill reported as being valuable. The support for skills listed may be explained by these skills being aligned with the five key competency domains found in the NZ curriculum which encompass knowledge, skills, attitudes, and values (Ministry of Education, 2007). Schools are charged with the responsibility of supporting their students in developing each of the five key competencies, including skills in thinking, relating to others, using language, symbols, and texts, managing self, and participating and contributing. These key competencies are demonstrated by performance, thus, require action, and are described as being important for employment and personal well-being (Ministry of Education, 2017). Many teachers in this study identified that many of these important skills can be fostered through mindfulness.

However, some teachers did not recognise the full extent of skills that could be fostered through mindfulness practice. If teachers were to engage in training on mindfulness, or be supported to help students learn about mindfulness they may become more aware of the other skills, aligned with the key competencies that could also be fostered through mindfulness practice. Such teacher training could provide teachers with a depth of knowledge about what the potential benefits of mindfulness are. In addition to the potential benefits, teachers might be interested to know that no research to date has found any detrimental effects for practising mindfulness which may be an additional motivator for teachers and schools (Meiklejohn et al., 2012).

The interface between 'teachers buy-in' and implementation

As noted in the first section, teachers' beliefs can influence the implementation of evidence-based programs in school settings when teachers did not believe a

program is important or beneficial (Brophy, 2010). This is often discussed in the implementation literature as teacher buy-in and is seen as being imperative for implementing new programs in schools. It is generally accepted that teacher buy-in is achieved when the majority of professional staff commit to promoting desired outcomes of organisational change (Boyce & Roman, 2002). Research provides evidence that for successful implementation of new initiatives which are to be institutionalized, there is a need for a minimum of 80% of indicated support by professional staff (Handler et al., 2007; Kincaid, Childs, Blase, & Wallace, 2007; McIntosh et al., 2013). The Ministry of Education's (MoE) own school-wide behaviour modification Positive behaviour for learning (PB4L) program is introduced to schools in NZ consistent with such research claims, also requiring 80% of teachers indicated support for the program to meet the criteria of inclusion for school-wide training and implementation of it (Te Kete Ipurangi, 2017). Given that 79% of teachers in this study indicated their willingness to implement a mindfulness program in their classroom, the use of mindfulness programs in primary schools may be a viable option for supporting student well-being. Additional information about appropriate programs and packages could be offered to schools to learn more and support the development of local school buy-in. A potential advantage of adopting mindfulness programs in New Zealand schools is that it has great alignment with PB4L, which is the MoE positive behaviour support initiative in schools.

Supporting factors to ensure successful implementation of mindfulness in the classroom

In this study, teachers reported they would need a number of supports to successfully implement a formal mindfulness program. Those supports identified include professional development / training by group workshop, a flexible program which allowed mindfulness to be embedded into the school curriculum and personal practice of mindfulness by those teachers who would be responsible for implementing a mindfulness program. Similar needs were commonly identified by school teachers across literature (Albrecht et al., 2012; Burke, 2010; Felver, Celis-de Hoyos, Tezanos, & Singh, 2016; Zenner et al., 2014) in relation to successfully

implementing mindfulness in the classroom. These needs could be meet by utilising those mindfulness programs which are currently available to schools for teaching students the practice of mindfulness. Because teachers are not the overall decision-makers about *what* is included in the curriculum, rather they are the implementers of a school curriculum (Campion & Rocco, 2009; Dariotis et al., 2017) efforts should be made to provide them with the support and means they require for the successful implementation of the curriculum they are charged with the responsibility of delivering successfully. Having a descriptive curriculum rather than a prescriptive mindfulness program could provide the flexibility teachers need to adapt the level they connect on with students, and provide personalised support to students for their potential achievement and well-being (Ahlin & Kjellgren, 2016).

Initial teacher education does not usually include developing pre-service teachers' skills in delivering mindfulness programs, which may explain one reason why the majority of teachers in this study have identified professional development as a support they would require. Previous research findings have been conflicted in relation to the need for teachers to engage in formal training to teach mindfulness. On the one hand, consistent with the findings of this study, those teachers who did not engage in regular personal mindfulness practice felt they would need to engage in training to successfully implement a mindfulness program (Albrecht, 2016; Campion & Rocco, 2009), with majority of teachers prepared to participate in professional development to extend their competence in teaching these skills in the classroom (Dariotis et al., 2017). On the other hand, other research shows those teachers who already practiced mindfulness did not agree that any formal training is needed to teach mindfulness. Rather, they suggested that embodied practice was far more critical for gaining compassion and insight and a compulsion to share this with others; concluding personal practice of mindfulness was a key ingredient for sufficiently preparing teachers to teach others mindfulness (Ahlin & Kjellgren, 2016).

In contrast to Ahlin and Kjellgran's (2016) findings, the current study found those teachers who *do* currently practice mindfulness, believe there *is a need for training* teachers in ways to teach mindfulness in the classroom. These findings are

consistent with those views held by Kabat-Zinn and others who strongly assert that the success of the implementation of a mindfulness program is closely related to the quality of the teaching, thus training of the teacher *and* intensive personal practice are required by teachers of mindfulness for gaining successful outcomes for students (Crane, Kuyken, Hastings, Rothwell, & Williams, 2010; Kabat-Zinn, 1994, 2003).

The feasibility of implementing a mindfulness program in class

For any new program to be successfully implemented it must be feasible for teachers to both prepare and implement (Beshai, McAlpine, Weare, & Kuyken, 2016). Consistent with other research (Buchanan et al., 2009), this study found that teachers believe it is very feasible for them to find the time to both devote 15 minutes to prepare materials to teach a mindfulness program and devote one class period per week implementing a mindfulness program in their classroom. Primary teachers believed that classroom teachers are well positioned for implementing a mindfulness program in the classroom because they have an established rapport with their students, know the children well, and can be responsive to each students' individual needs in delivering a mindfulness program.

Similar to this study, other studies argue that teachers are implementers of the school curriculum, their knowledge and expertise are essential for ensuring appropriate adaptions of the curriculum are made, ensuring the curriculum is accessible to each student (inclusion), and that implementation of that curriculum is effective, resulting in student achievement (Ahlin & Kjellgren, 2016; Campion & Rocco, 2009; Dariotis et al., 2017). Ultimately, teachers believe they are best positioned to prepare and implement a mindfulness program in their classroom, and that it is feasible for them to do so.

Limitations of this study

There are several limitations of this study that should be taken into consideration when interpreting this study's results. A key limitation was the limited number of responses gathered (n=45). Although the aim of the sampling design was to keep

the study size manageable, more teachers from the invited sample of schools would provide a more robust representation of teachers' perspectives. This study used an online survey, which included purposive sampling targeting only three regions in New Zealand. Such sampling methods may introduce bias into the sample, and reduce the generalisability to the intended population (Cozby, 2007). Another limiting factor, in relation to participating schools, was that the majority of participating schools were state owned. A larger participant pool may have resulted in a broader representation of both state owned, private and integrated schools.

Furthermore, the recruitment strategy in the present study relied on principals passing along the study invitation to teachers. Given that some research has reported that principals and school administrators were identified as one of the potential barriers to implementing a mindfulness program in schools (Albrecht, 2016; Campion & Rocco, 2009; Dariotis et al., 2017; Thomas & Atkinson, 2017), going through principals to access teachers may have influenced the teachers who received the invitations.

Lastly, Braun & Clarkes', (2006) thematic analysis accounts for the researcher influencing the research itself, including the interest in the topic under study, questions asked within the survey, and which data were included for analysis. In this instance, mindfulness is a topic of interest to the researcher due to her own personal practice and experience with a number of benefits. Consequently, when examining the results of this study, being cognisant of the principal researcher's own personal interest and mindfulness practice is advised.

Implications for practice

Given that the results of this survey demonstrate a high-level level of teacher buy-in, it is important to acknowledge the implications of teacher buy-in. Research shows there is a connection between teacher buy-in and 'faithful' implementation of any new program, and that gaining teacher buy-in increases the probability of successful implementation of new programs (Fashola & Slavin, 1999; Ransford,

Greenberg, Domitrovich, Small, & Jacobson, 2009). Based on these findings, it is possible that if mindfulness was introduced in more schools in New Zealand, it may be well supported by teachers which can support successful implementation. Because teachers' motivation levels can change based on their current beliefs and knowledge it is important to educate teachers on the potential benefits of mindfulness for cultivating valued skills for students. When teachers are fully informed on the potential benefits of mindfulness practice they may become even more motivated towards implementing mindfulness in schools.

Although, teachers have suggested preparing and implementing a mindfulness program in their classroom could be feasible. It is important to note that teachers need time to prepare and implement mindfulness programs in their classroom. Teacher buy-in has been raised as a critical component for the successful implementation of a new program in schools. If mindfulness programs are adopted, teachers should be afforded the opportunity to be heard, given they have the expertise for what works well in their classroom for them and their students' success. Exploration of teachers views about the potential benefits of mindfulness in schools is one way of affording teachers' autonomy and recognition for their expertise in teaching students' valuable life skills.

There are a number of mindfulness programs which exist and are available to schools, even those which have been contextually designed specifically with NZ school populations in mind, founded on Te Whare Tapa Wha (Rochford, 2004) and the NZ Curriculum's five key competency areas of development (Ministry of Education, 2007), for extending student's academic achievement *and* student well-being. One such mindfulness program in New Zealand is 'Pause, Breath, Smile' (Bernay et al., 2016; Rix & Bernay, 2014). This program provides the support teachers in this study indicated as being needed for the successful implementation of a mindfulness program in their classroom including professional development/training by group workshop, a flexible program allowing mindfulness to be embedded into the school curriculum and personal practice of mindfulness by those teachers who would be responsible for implementing the mindfulness program.

The benefit most likely to be gained by students for practising mindfulness is the development of those skills which have been identified as being critically important for reducing the risk of development of mental illness, its effects, and youth suicide (Gluckman, 2017). These skills include social and emotional regulation and communication and academic achievement. Psychological benefits are learning ways to cope and build resilience through the development of enhanced impulse control, improved sustained and flexible attention, and the ability to demonstrate kindness and compassion for self and others across settings and the students life-span (Albrecht, Albrecht, & Cohen, 2012; Broderick and Metz, 2009; Flook et al, 2010; Oberle, Schonert-Reichl, Lawlor, & Thomson, 2012; Schonert-Reichl et al., 2015). These skills have also been recogonised as personal charatcer strengths and capabilites identified in the longitudinal Dunedin study as being key childhood skills related to adulth health outcomes (Fredickson, Cohn, Coffey, Pek, & Finkel, 2008; Goodman, Joshi, Nasim, & Tyler, 2015; Olsson, McGee, Nada-Raja, & Williams, 2013). Significantly, our ability to regulate our emotions is a greater predictor of adult outcomes, than our intellectual intelligence (Gluckman, 2017). In developing such skills students can learn ways to relieve themselves from pain and psychological discomfort; gain greater self-control and build resilience (Kabat-Zinn, 1994). Moreover, by utilising approaches effective for cultivating these important skills, such as mindfulness practice in schools, we are more likely to mitigate the tragic statistics in New Zealand related to youth suicide, and better prepare our children and students not only with the skills for coping with adversity, but importantly support them in building their own personal capacity for flourishing and enjoying a happy, fulfilling life.

Considering the current youth suicide statistics in NZ, and the fact that schools are now charged with the responsibility for demonstrating ways in which they are supporting students' overall wellbeing, there is a need to ensure teachers learn ways for developing all of the five key domains of the NZ curriculum. Evidence shows those five key domains identified for development within the NZ curriculum are the same factors which are involved in developing resilience in students, supporting the mental wellbeing of youth, and adult outcomes for health

(Gluckman, 2017; Goodman et al., 2015; Harold & Gluckman, 2011; Olsson et al., 2013). Such evidence is convincing enough to warrant schools to consider the implementation of mindfulness-based programs in the classroom, because developing these domains have real life consequences now and in the future for our students. These key areas of learning can be addressed through mindfulness programs and if adopted may require teachers to be formally trained in the benefits and ways for teaching mindfulness programs in schools, if this is the direction the Ministry of Education moves towards.

Recommendations for future research

Given the relatively small sample, a wider scoped study needs to take place to gain a deeper understanding of teachers' views about mindfulness in New Zealand schools. Such a study needs to capture the perspectives of teachers in early childhood education, primary, and secondary schools and principals, across state owned, private and integrated schools because research has indicated such skills should be introduced for learning from early childhood (Gluckman, 2017). Ensuring that teachers are provided with non-contact time to complete the surveys may also increase the likelihood of responding to the research.

Future research might also investigate the impact mindfulness may have on those teachers implementing such programs (Domitrovich et al., 2016). In doing so, such findings may be included for training teachers about mindfulness prior to them being involved with training or implementing a mindfulness program, possibly as part of pre-service teacher training. Informing teachers on the potential benefits for themselves as teachers and their teaching practices may provide additional motivation for them to implement a mindfulness program in schools and highlight some ways in which teaching students how to practice mindfulness could support schools for meeting their mandated obligations of developing students' skills across the five key competencies within the NZ curriculum.

Lastly, recommendations are for the government to consider researching the potential benefits of including formal mindfulness programs within the school curriculum from early years onwards, collecting pre-and post-intervention data,

ensuring evidence-based decisions can be made by decision makers, drawn from the findings of such research that includes effects for teachers, students and communities. Given how easily mindfulness is aligned with the ministries current PB4L behaviour support initiative, and the availability of formal mindfulness programs to schools, it is recommended mindfulness programs be piloted within the existing PB4L framework.

Conclusion

Children today are inevitably faced with a greater number of choices and rapidly changing demands compared to earlier generations which require them to cope with relatively higher levels of stress, anxiety, depression; consequently, there is a real need for children to be taught how to be resilient (Gluckman, 2017; Sariyildiz, 2017). Gluckman strongly recommends from a young age all primary schools should be developing skills which allow students to build individual capacity in skills such as social and emotional regulation which enable students to cope and build resiliency. Ideally this will be done by utilising those things we already know about for reducing the risk and incidence of the social and emotional challenges children are faced with (Gluckman, 2017). Mindfulness programs in schools may be one such solution.

This study is the first of its kind for exploring teacher's knowledge, beliefs and perspectives about mindfulness in schools *prior* to the respondents having been involved in any training or implementation of a formal school-based mindfulness program. The findings here indicate that teachers are willing to implement mindfulness programs in the classroom and participate in professional development to support their implementation. Furthermore, these findings report teachers believe it is feasible to implement mindfulness programs in the classroom. Teachers have a consistent view about which skills are valued in a classroom environment, and perceive mindfulness as one solution for cultivating these valued skills. Currently, there are several formal programs available to schools for providing the support teachers have identified and findings from this study, have

indicated they want, such as programs with training, support and a flexible program.

Should schools adopt such programs, the successful development of mindfulness skills would provide students with the experience needed to create and maintain positive relationships, regulate their emotions, recognise theirs and others emotions and communicate about these, use coping strategies and build personal capabilities, including resilience in the face of adverse experiences and reduce avoiding negative experiences in favour of recognising situations and problem-solving, responding to situations with sound decisions based on information gathered vs emotional reactions. Furthermore, students will be able to recognise positive emotions, express kindness and compassion to self, others and the environment, reflecting on experiences with a view for having gratitude, and developing their own ability to flourish.

This skill set builds on the tenants of positive psychology that indicate that it is not enough to simply be free from dis-ease, and attain academic intelligence, rather we need to find ways for also developing our emotional intelligence, too, in doing so would afford us the opportunities to live meaningful, purposive, happy lives. Schools are well positioned for developing both academic skills in preparation for entering higher education or the workforce, and developing students sense of belonging, identity, and social and emotional skills which are all closely linked to health indicators in adulthood (Education Review Office, 2013; Gluckman, 2017; Henderson & Milstein, 2003) which have life-long effects and consequences.

School plays a major role in cultivating the kinds of mental habits and social and emotional dispositions that children will need to learn in order to lead productive, satisfying, and meaningful lives in the present century (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009) and mindfulness may be a possible pathway.

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Appendices

Appendix A: Invitation to participate, including the electronic link to survey.

01st September 2017

RE: University study examining Mindfulness in schools

Attention: All school principals

In a recent report by Sir Peter Gluckman, (Chef New Zealand Government Science Advisor), New Zealand was said to have the highest youth suicide rate in the developed world, caused not as much from youth being mentally unwell, rather youth are not resilient enough to the pressures of the world around them. Youth need to be taught coping skills, such as resilience, impulse control and executive functions from as early as 6 years old says, Gluckman, (2017). Such revelations highlight the importance of prevention programs in early primary as part of reducing the youth suicide rate in New Zealand. Such skills can be cultivated through mindfulness.

This study aims to examine primary teachers' knowledge, beliefs and perceptions about mindfulness in classrooms; the skills derived from mindfulness practice, and the utility of those skills in a classroom setting, as well as what teachers needs are for promoting the use of mindfulness programs in schools. It is estimated this survey will take approximately 20 minutes to complete, depending on individual responses. This survey will close three weeks from opening, on 22nd September 2017 at 5pm. Full information about this study is attached to this email, for you to read.

Please forward this email, including the attached full information sheet to each of your primary teachers to invite their participation in this study, by completing this survey. I trust your primary teachers recognise the importance of this topic, and how valuable their input is for better understanding what teachers' views are about the implementation of mindfulness in schools. Please click this link to be taken to the survey now.

https://www.surveymonkey.com/r/PrimaryTeachersPerspecitvesAboutMindfulnessInSchools

Kindest regards

Debbie Kenwright

Masters student of Massey University and researcher.

Appendix B: Information Sheet.

Understanding primary teachers' knowledge, beliefs, and perspectives about mindfulness in a classroom setting.

INFORMATION SHEET

My name is Debbie Kenwright, I am a Massey University student, completing my Master of

Educational Psychology (MEdPsych), under the supervision of Dr Tara McLaughlin, (Senior

Lecturer in the Institute of Education) and Associate Professor Sally Hansen, (Director, Institute of Education). I am conducting a survey to gain a greater understanding of primary teachers' knowledge, beliefs, and perspectives about mindfulness programs in schools, the skills derived from mindfulness programs, the utility of those skills, and supports needed to promote the implementation of mindfulness in schools.

To identify potential schools for participation in the survey I randomly selected schools from the Canterbury, Taranaki, and Waikato regions. Invitations to schools will remain confidential and additional schools will be selected as needed to reach a desired response rate from primary school teachers.

The focus of the study is to learn about the perspectives of teachers who are not currently, nor have been previously involved in implementing a formal mindfulness program in a school context. The reason for this criterion is to gather the perspectives of teachers who do not have prior experience in implementing a mindfulness-based programme.

If you are a primary school teacher who has not previously been part of implementing a

mindfulness programme in schools, I would like to invite you to participate in a brief online survey.

Participation in this survey is anonymous and voluntary. Completion of any question implies consent. The survey is expected to take 15-20 minutes to complete.

Data Management

Data collected from the survey will be stored securely and will only be accessible to the researcher and the research supervisors. All data collected are confidential and anonymous. The researcher will be solely responsible for the appropriate disposal of all data after 5 years of secure storage. Data will only be used for the purposes of completing the thesis and any resulting publications. If you would like a summary of the study findings, please email me.

Participant Rights

You are under no obligation to accept this invitation.   If you decide to participate, you have the right to:
- *decline to answer any particular question;*
- *end your participation in survey at any point;*
- *ask any questions about the study at any time during participation;*
- *provide information on the understanding that your name will not be used;*
- *be given access to a summary of the project findings, upon request, when the study is concluded.*

Project Contacts

Contact details for this study are:

Researcher: Debbie Kenwright – research@vodafone.co.nz

Supervisor: Tara McLaughlin – T.W.McLaughlin@massey.ac.nz

Supervisor: Sally Hansen – S.E.Hansen@massey.ac.nz

Please feel free to contact the researcher or supervisors if you have any questions about this project.

Thank you for your time.

Debbie Kenwright

Masters student of Massey University and researcher.

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director, Research Ethics, telephone 06 356 9099 x 86015, email *humanethics@massey.ac.nz*".

Appendix C: Copy of the full survey.

Survey Information

This study aims to examine primary teachers' knowledge, beliefs, and perspectives about mindfulness in classrooms; the skills derived from mindfulness practice, and the utility of those skills in a classroom setting, as well as what teachers needs are for promoting the use of mindfulness programs in schools. This survey will be carried out with primary school teachers from three selected regions within NZ ensuring each region provides a representative mix of urban and rural schools from Canterbury, Taranaki, and Waikato. No school or teacher will be individually identified.

The completion of this survey is both anonymous and voluntary. Completion of any question provides consent. Participants have the right to decline to answer any question and discontinue their participation in this survey at any time. If you are a primary school teacher who has not previously been part of implementing a mindfulness program in schools, I would like to invite you to participate in a brief online survey. No payment or reimbursement is offered for participation, just my gratitude for taking the time to complete this survey.

The survey is estimated to take approximately 15 - 20 minutes, dependant on individual responses. Your responses are valuable in filling the gap in research related to gaining a better understanding of primary school teachers knowledge, beliefs, and perceptions about mindfulness in the classroom.

Thank you again for your time.

By clicking the 'NEXT' next button you are giving your informed consent to participate in this survey. You will be taken to Question 1.

Understanding primary teachers knowledge, beliefs and perspectives about mindfulness in a classroom setting

1. For the purpose of this study, a 'mindfulness program' is defined as "a structured program explicitly or intentionally embedded into the school curriculum for the purpose of teaching mindfulness practices, either formally or informally".

Have you ever participated in the training of or implementation of a school-based mindfulness program?

◯ Yes

◯ No

Demographic questions

2. How many years teaching experience do you have in total? (years and months)

	Years	Months
Experience teaching in total	⬍	⬍

3. What year level do you currently teach? (Please select all that apply.)

☐ New entrants

☐ Year 1

☐ Year 2

☐ Year 3

☐ Year 4

☐ Year 5

☐ Year 6

4. Is your school a state, private or integrated school?

◯ State

◯ Private

◯ Integrated (initially private, now includes a percentage of state enrollments.)

5. What is the decile rating of your school?

◯ 1

◯ 2

◯ 3

◯ 4

◯ 5

◯ 6

◯ 7

◯ 8

○ 9

○ 10

6. Is your school best described as urban or rural?

○ Urban

○ Rural

○ Other (please specify)

[   ]

7. Which region is your school located in?

○ Canterbury

○ Taranaki

○ Waikato

8. Which of the following ethnicities do you identify with (Please select all that apply?)

☐ NZ/European

☐ NZ/Maori

☐ Pasifika

☐ Asian

☐ Other

9. Do you identify as male or female?

○ Male

○ Female

Understanding primary teachers knowledge, beliefs and perspectives about mindfulness in a classroom setting

Knowledge, beliefs, and perspectives about mindfulness in schools

10. Before participating in this survey, had you heard of the term 'mindfulness'?

○ Yes

○ No

11. In your own words, please describe what mindfulness is?

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12. For the purpose of this study, 'mindfulness' is defined as "paying attention in a particular way: on purpose, in the present moment, and non-judgementally" (Kabat-Zinn, 1994, p. 4).

Do you currently practice mindfulness personally?

◯ Yes

◯ No

13. Do you believe mindfulness should be taught in classrooms?

◯ Yes

◯ No

14. Please explain your response to the previous question.

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15. Do you believe mindfulness could be beneficial for students to practice?

◯ Yes

◯ No

16. Please explain your response to the previous question.

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17. If a mindfulness program was to be implemented, who do you believe should be responsible for teaching it in a classroom setting? (Choose one.)

◯ Classroom teacher

◯ Outside agency facilitator

◯ School

social

worker ◯

School

administrat

or

◯ School principal

◯ School counselor

18. Please explain your response to the previous question.

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19. Would you be willing to implement a mindfulness program in your classroom?

◻ Yes

◯ No

20. Please explain why you would be willing/unwilling to implement a mindfulness program in your classroom.

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Understanding primary teachers knowledge, beliefs and perspectives about mindfulness in a classroom setting

Knowledge, beliefs, and perspectives about key skills in the classroom

21. Which of the following skills, if any, do you believe are important for students to demonstrate in a classroom setting? (Select all that apply.)

☐ ability to relax

☐ social skills

☐ emotional regulation

☐ resilience

☐ ability to consider appropriate responses before reacting impulsively (awareness)

☐ ability to show kindness

☐ ability to show compassion

☐ ability to show gratitude

☐ ability to show sustained attention (focus)

☐ ability to switch attention (flexible)

☐ ability to ignore distractions

☐ Other (please specify)

[ ]

Understanding primary teachers knowledge, beliefs and perspectives about mindfulness in a classroom setting

Knowledge, beliefs, and perspectives about the skills developed from mindfulness

22. Which of the following skills, if any, do you believe students develop from practicing mindfulness?

(Select all that apply.)

☐ ability to relax

☐ social skills

☐ emotional regulation

☐ resilience

☐ ability to consider appropriate responses before reacting impulsively (awareness)

☐ ability to show kindness

☐ ability to show compassion

☐ ability to show gratitude

☐ ability to sustain attention (focus)

☐ ability to switch attention (flexible)

☐ ability to ignore distractions

☐ Other (please specify)

[_____]

Understanding primary teachers knowledge, beliefs and perspectives about mindfulness in a classroom setting

Feasibility of implementing a mindfulness program

For the purpose of this study, 'mindfulness program' is defined as "a formal mindfulness program explicitly or intentionally embedded into the school curriculum for the purpose of teaching mindfulness practices, either formally or informally".

23. How feasible would it be for you as the classroom teacher to implement the following? (Please respond to all four options.)

	Not feasible	Somewhat feasible	Very feasible
Devote one class period per week to implement a mindfulness program?	◯	◯	◯
Devote two class periods per week to implement a mindfulness program?	◯	◯	◯
Devote 15 minutes preparing materials to teach a mindfulness program per week?	◯	◯	◯
Devote 30 minutes preparing materials to teach a mindfulness program per week?	◯	◯	◯

24. What barriers, do you think you would face if you wanted to implement a mindfulness program in your classroom? (Select all that apply.)

☐ Obtaining the principal's endorsement

☐ Obtaining parent's endorsement

☐ Lack of time to implement due to current curriculum demands

☐ Lack of time to prepare

☐ Lack of access to a mindfulness program

☐ Obtaining access to training for how to implement a formal mindfulness program or some form of support

☐ Negative attitudes of other staff

☐ Negative attitudes of students

Other (please specify)

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[                                                                    ]
[                                                                    ]
[                                                                    ]
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Understanding primary teachers knowledge, beliefs and perspectives about mindfulness in a classroom setting

Support required for promoting the use of mindfulness in the classroom

25. Would you be willing to participate in professional development for learning how to teach mindfulness in your classroom?

◯ Yes

◯ No

26. If you were to implement a mindfulness program, what support, if any, would you need to do so successfully? (Select all that apply.)

- [ ] Principal's endorsement

- [ ] Parent's endorsement

- [ ] A differentiated, formal program

- [ ] A formal program, to be embedded in the current curriculum

- [ ] 1:1 Consultation support, including observation and feedback

- [ ] Professional development / training by group workshop

- [ ] A flexible program which allowed mindfulness to be embedded into the school curriculum

- [ ] Time in the classroom schedule (one class period per week)

- [ ] Time in the classroom schedule (two class periods per week)

- [ ] Non-contact time to prepare (15 minutes per week)

- [ ] Non-contact time to prepare (30 minutes per week)

- [ ] Formal measurements for measuring the effects of a mindfulness program (evidence)

- [ ] Personal practice of mindfulness

- [ ] Positive attitudes about mindfulness from other staff

- [ ] Positive attitudes about mindfulness from the student's

- [ ] Other (please specify)

27. As a classroom teacher what would motivate you to implement a mindfulness program in your classroom? (Select all that apply.)

- [ ] Principal's endorsement

- [ ] Principal's request

- [ ] Parent's endorsement

- [ ] Free training to learn how to implement a mindfulness program in my classroom

- [ ] Paid training to learn how to implement a mindfulness program in my classroom

- [ ] The knowledge and satisfaction that my students would benefit from participating in a mindfulness program in my classro

- [ ] 1:1 consultation support, including observations and feedback

- [ ] Adding this skill to my toolbox as a teacher

- [ ] Belief it would help me as a teacher in classroom/behaviour management

- [ ] Belief it would help me as a teacher in supporting student's academic achievement

- [ ] Belief it would support student's academic achievement

- [ ] Other (please specify)

Understanding primary teachers knowledge, beliefs and perspectives about mindfulness in a classroom setting

Your final thoughts

28. Do you believe schools should offer a formal mindfulness program?

◯ Yes

◯ No

29. Please explain your response to the previous question.

30. Please share any other information you believe is important in relation to your knowledge, beliefs, and perceptions about mindfulness in schools?

Thank you for participating in this survey.

Thank you for participating in this survey. Your time is appreciated and will help fill the gap in research for better understanding primary school teacher's knowledge, beliefs, and perspectives about mindfulness in schools.

Appendix D: Ethics notification number: Low risk.

Date: 11 July 2017

Dear Debra Kenwright

Re: Ethics   Notification   -   **4000018124**   -   **Primary   school teachers'   knowledge,   beliefs and perspectives about mindfulness in schools.**

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

If situations subsequently occur which cause you to reconsider your ethical analysis, please contact a Research Ethics Administrator.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:
"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director - Ethics, telephone 06 3569099 ext 86015, email humanethics@massey.ac.nz. "

Please note, if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to complete the application form again, answering "yes" to the publication question to provide more information for one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

Dr Brian Finch
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)