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Exploring a Mindfulness Program in a Girls' Secondary School in Melbourne

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DECLARATION

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LIST OF ABBREVIATIONS

ACARA	Australian Curriculum, Assessment and Reporting Authority
APA	American Psychological Association
DAAS	Depression Anxiety Stress Scale
HG	Home Group
KF	Key Finding(s)
KIMS	Kentucky Inventory of Mindfulness Skills
MAV	Mathematical Association of Victoria
MBI	Mindfulness-Based Intervention
MBSR	Mindfulness-Based Stress Reduction
MiSP	Mindfulness in Schools Project
PMI	Plus Minus Interesting
SAC	School Assessed Coursework
VCAA	Victorian Curriculum Assessment Authority
VCE	Victorian Certificate of Education
VUCA	Volatile, Uncertain, Complex and Ambiguous

ABSTRACT

Mindfulness is widely used in the medical and health fields to treat clinical conditions including anxiety and depression. It is increasingly being implemented in educational settings world-wide to improve or maintain student wellbeing and to develop resilience. There is a dearth of research in Australian schools, particularly secondary schools, around mindfulness interventions, their effects and the experiences of the staff and students who participate in these programs.

The study explores the experiences of a school-based mindfulness program from the perspectives of staff and students at an independent, girls' secondary school in Melbourne, in South Eastern Australia. 74 Year 7 students completed a survey about their experiences of mindfulness and two focus group interviews were conducted, one with five students who had completed the survey, and a second focus group of four Year 12 students (learning mindfulness at this school since Year 7). In addition, six staff members volunteered to be interviewed (individually) regarding their perceptions of the mindfulness program, including difficulties and suggestions for improvement.

The findings were that, while some students regularly participated in mindfulness activities in their classes at school, the amount, content and expertise of the teachers varied greatly. Students reported mindfulness as being beneficial, for example to help focus on tasks, to reduce stress or to help with sleep. Some students had sufficient training and practice in mindfulness to enable them to use mindfulness independently, often at home or other places but also at school. Staff were confident in the benefits of mindfulness they saw in students, but reported difficulties in fitting regular mindfulness sessions into the school day. Not all staff interviewed were confident about teaching mindfulness, particularly mindfulness meditation. All felt the need for more training and ready access to quality mindfulness materials and activities.

The findings of the study are discussed then limitations as well as implications for school mindfulness programs, teacher development and pre-service training explored. Several recommendations are developed from the study findings as ways to encourage development and implementation of school mindfulness programs which are effective and sustainable.

CHAPTER 1: INTRODUCTION

1.0 Introduction

In this chapter, the introduction to the study, mindfulness will be defined. Then the context and my interest in mindfulness explained. Following sections set out the reason for and significance of this study and state the research question which is its foundation. The final section in this chapter describes the format of the remainder of the thesis.

1.1 Mindfulness defined

Mindfulness has been used in Eastern civilizations over many centuries (Hanh, 2008) but more recently its benefits have been discovered and adopted for use in a secular way by Westerners (Williams & Penman, 2011). One of the early adopters of mindfulness in the Western world is Jon Kabat-Zinn. Through dedicated research over many years, he and his colleagues have been responsible for greater insight into what mindfulness is, how to develop mindfulness and research into clinical conditions in adults, such as depression, which can be alleviated through its use (Kabat-Zinn, 1990).

Kabat-Zinn (2003) defines mindfulness as, “the awareness that emerges through paying attention on purpose, in the present moment, and non-judgementally to the unfolding experience moment by moment” (p. 245). A simplified definition, provided by Hassed and McKenzie (2012), is “mindfulness is the practice of paying attention: knowing where our attention is and being able to choose where to direct it” (p. 5.) Over the years, and through a number of researchers working in the field, the meaning of mindfulness has broadened. While similar, the facets of mindfulness have been described in various ways, for example:

“The qualities of a mindful state of being as:

- 1) Creation of new categories,
- 2) Openness to new information and
- 3) Awareness of more than one perspective” (Langer, 2014, p. 64);

“Attitudinal foundations of mindfulness practice as: non-judging, patience, beginner’s mind, trust, non-striving, acceptance and letting go” (Kabat-Zinn, 2013, p. 21); and

Cognitive aspects of mindfulness: perception, present moment, non-attachment and acceptance (Hassed & Chambers, 2014).

For the purposes of this research, Hassed and McKenzie's (2012) definition of mindfulness is important because of its relevance in an educational setting, since for students to learn they need to be able to pay attention, and this definition identifies that it is possible to choose the focus of attention.

The practice of mindfulness for the treatment in adults of many, particularly chronic, conditions is widespread and has a strong evidence base. See, for example, studies by Beauchemin, Hutchins and Patterson (2008), Kabat-Zinn (1990), and Wright and Schutte (2014). Research has shown similar positive effects for treating clinical conditions in children, for example depression and anxiety (Chambers, Gullone, Hassed, Knight, Garvin & Allen, 2015). Attention is now spreading to the use of mindfulness by healthy individuals, both adults and children, as a means to maintain wellbeing (Hassed & McKenzie, 2012).

1.2 My Interest and Research Problem

My interest in mindfulness came about through observations of students in my maths classes at a government secondary school and how some are better able to manage their emotions and harness their attention in the classroom than others. In my experience, this ability to concentrate on the matter at hand does not seem to be necessarily connected to the capability of the student in that particular subject. However, for students who find the topic difficult, being able to maintain their attention is vital for any learning to occur. For these students, inattention is the start of a downward spiral whose effects expand beyond just that subject to causing lack of confidence, poor self-concept, loss of motivation and possibly physical or mental health issues, for example anxiety or depression.

Articles in the media about mindfulness and information on brain plasticity gave me a sense that there might be a scientific basis for mindfulness and that anyone might learn to be more 'in the moment'. If this is true, then learning mindfulness could have wonderful effects on students who were prepared to use it, on their mental and physical health, their resilience and on their academic performance. Having attended classes on mindfulness and successfully implemented mindfulness meditation at the commencement of some of my Year 9 Mathematics classes, I resolved to investigate mindfulness further. Thus in 2014 I applied for, and was awarded, the WE McPherson Fellowship to undertake study into mindfulness in schools, particularly with respect to girls.

1.3 Significance and Research Gap

This research has the potential to enable timely and targeted mindfulness training for secondary school students to be identified and thus provide a means to improve their wellbeing and performance. There are several key reasons, outlined below, why this research is significant and offers insights that contribute to gaps in the mindfulness field of research.

- There is very little research in the Australian education context, therefore this research is much needed and would contribute to a growing evidence base.
- A secondary school focus is important because it is a missing perspective from the existing body of knowledge.
- At present, it is unknown whether there is an optimal format or time to train students in mindfulness. Research from Australian secondary schools who integrate mindfulness into their programs would provide valuable insights.

This research has the potential to inform the development of effective mindfulness programs for use in school settings, so that it is presented at the optimal age or stage, manner and format, universally or as a targeted intervention.

1.4 Purpose

The purpose of this study is to investigate the mindfulness program being implemented in an independent girls' secondary (Year 7 to Year 12; aged 12 to 18 years) school in Melbourne, located in South-East Australia, to gain insights from teachers and students into the features of their programs.

1.5 Research Question

The question driving this research is: What are the experiences of participating in a school-wide mindfulness program from the perspectives of staff and students?

1.6 Thesis Structure

Following this chapter, this thesis comprises five more chapters. Chapter 2 reviews the literature around mindfulness, particularly in education, both internationally and in the Australian context. Chapter 3 outlines the methodology chosen for this study, describing the study design and implementation including participants, data collection and data analysis. Chapter 4 explores the findings of the study reporting the staff perspective and the student

perspective for each of the key themes which were identified. In this chapter 18 Key Findings are made. Chapter 5, the discussion chapter, investigates these findings further considering both staff and student perspectives and how these relate to other studies in the field in order to inform future school-based mindfulness programs. The chapter is structured around the four assertions which arise from the findings. Chapter 6 answers the research question, discusses limitations of the study and implications for the future. In the implications section recommendations relating to each of the assertions are made. The final section draws some conclusions from the study. The appendices contain the key findings, assertions and their associated recommendations and materials used in data collection.

1.7 Summary

This chapter has set the scene for the study into mindfulness at a girls' secondary school by defining mindfulness, the purpose and significance of the study and framing the research question as well as outlining the format of the following thesis chapters. Chapter 2 comprises a review of the literature in the field of mindfulness in the context of education.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This literature review explores research into the use and impact of mindfulness programs in schools and on young people, for teachers and specifically in the context of Australian education.

2.1 Mindfulness used on School Students

Meiklejohn and his colleagues (2012) developed an excellent review of mindfulness in education, which described 10 different training programs predominantly from the United States and England. None featured Australian mindfulness programs. They included the following evidence-based programs:

- The *MindUP* program developed by the Hawn Foundation (Hawn & Golden, 2011) and used since 2004 in many US primary schools;
- *Learning to BREATHE* (Meiklejohn et al., 2012) which is a US prevention program for adolescents developed from Kabat-Zinn's (1990) *mindfulness based stress reduction therapy (MBSR)* and other related emotional regulation therapies; and
- The English-developed *Mindfulness in Schools Project (MiSP)*, which is offered to students aged 14-18 years during normal school lessons (Kuyken et al., 2013).

These programs occur as a course or series of lessons, which are taken by the entire class (universally), running weekly for six to nine weeks with lessons designed to teach mindfulness techniques to:

- Enhance emotional regulation;
- Strengthen attention;
- Manage stress; and
- Improve general wellbeing.

In addition to formal lessons students are encouraged to integrate mindfulness into everyday life and this may include short periods of meditation. For example, mindful breathing for three minutes to regain focus which could occur at any time during the school day (Meiklejohn et al., 2012).

As interest in mindfulness has developed to include researchers in areas such as Health, Education, Business and Sport through to the average person in the street, the number of published studies involving mindfulness have grown dramatically. This is true too of studies

investigating mindfulness in an education setting (Van Dam et al., 2018). One area of interest within the education context is determining if there is an optimal age for teaching mindfulness to children and adolescents. Another focus is understanding what format(s) is effective as generally mindfulness programs for children have been adapted from adult programs derived from Kabat-Zinn's (1990) MBSR program.

For example, a recent study (Hutchinson & Huws, 2018) investigated the experiences of 15 Grade 6 (aged around 12 years) students using mindfulness in their life. These students had been taught mindfulness through the *.b Paws* curriculum when in Grade 4 (aged around 10), used it incidentally since then and undertook further training as part of the study. They were asked to each draw a picture which showed how they used mindfulness in their life. The students then participated in one of two focus group interviews where they described when they used mindfulness and its effects. They also talked about the picture they had drawn. Findings from this study were that the students found using various mindfulness techniques helpful for calming themselves down, for becoming aware of their own, and sometimes others' emotions, and for improving focus. While some of these students routinely used mindfulness, others only used mindfulness when prompted to do so by some event, such as getting upset while at school or becoming worried about a task. These Grade 6 students were not all in the same class, nor did they have mindfulness sessions as a whole class and some reported the difficulty of trying to use mindfulness, particularly some techniques, while at school as it was not commonplace to do so.

Having analysed many studies involving mindfulness and youth Renshaw, Fischer and Klingbeil (2017) have proposed that mindfulness-based interventions (MBIs) can be used at schools in three different ways.

1. At the lowest level, they propose that MBI is beneficial for the emotion regulation and wellbeing of mainstream students and can be taught universally in the classroom.
2. The next level is for use in a targeted group of students, taught by the school psychologist using a specially prepared MBI.
3. The final level is for individual treatment of students with specific problems by the psychologist using MBI.

Both the higher levels would be taught mindfulness in sessions away from the whole class setting. It is noteworthy that the authors propose that all the mindfulness instruction at the school, even the universal (undertaken by the entire group of students) mindfulness training, be carried out by a psychologist. This is probably because of the importance for anyone

leading mindfulness sessions to be aware of the need to give participants who may have suffered trauma or mental health issues the choice whether or not to undertake the mindfulness activities, in order to use mindfulness safely (Treleaven, 2018).

Further areas of interest for research are the possible impact of mindfulness on test anxiety and performance. For example, Bakosh, Mortlock, Querstet and Morison (2018) in their study of the use of a daily, audio-guided MBI in 16 classes over two primary schools in the US found that students who used mindfulness generally improved their scores in Maths, Social Studies and their Grade Point Average. The effects, however, were usually not statistically significant when compared to the students in the non-intervention classes. The researchers noted that by using the audio-guided MBI, training in mindfulness for the class teachers was not vital. This made this form of MBI a possibly viable option for embedding mindfulness in schools without using experts or in-depth training of teachers. However this view neglected the need for teachers to be able to recognise when certain mindfulness activities are inappropriate, for example when students may have suffered trauma, something which can be achieved with training. Test anxiety can result in poor performance for students and various studies have implicated worry, as well as low working memory, as factors which impact thinking and problem solving (Trezise & Reeve, 2015). Recently Carsley and Heath (2018) showed in their study of Year 8 students that short periods of mindfulness colouring just before an assessment significantly reduced test anxiety as well as significantly increased the students' mindfulness state. These studies are promising as they indicate benefits of mindfulness for students are widespread covering wellbeing and performance.

2.2 Mindfulness and Teachers

In the United Kingdom, mindfulness training is being offered to experienced teachers (Gold, Smith, Hopper, Herne, Tansey & Hulland, 2010). Gold and colleagues (2010) study of nine primary teachers and two assistant teachers who participated in the MBSR program showed improvement in all their mindfulness scores with the improvement on the 'acceptance without judgement' scale being statistically significant. The Kentucky Inventory of Mindfulness Skills (KIMS) test measures four areas of mindfulness: observing, describing, acting with awareness and acceptance without judgement (Baer, 2004). Also improved were the teachers' scores on the Depression Anxiety Stress Scale (DAAS) (Gold et al., 2010). The program involved weekly group sessions and regular formal and informal mindfulness practices. Before the mindfulness intervention most of the teachers identified as having significant emotional

distress and depression. On completion of the program, they were generally in better emotional health and reported being 60% closer to reaching their individual goals.

Bernay (2014) stated that many teachers in New Zealand, as well as internationally, leave teaching within their first five years. Therefore, programs which promote wellbeing and develop healthy coping strategies in student and graduate teachers are needed to enable them to meet the challenges of, and flourish in, the classroom. He completed a study documenting the lived experience of five teachers using mindfulness in their first year of teaching. These beginning teachers had learned mindfulness over the course of their primary education degree (12 sessions in first year, 11 sessions in second year and 10 sessions in third year). The mindfulness strategies taught and practiced were: “mindful eating, breath awareness, body scan, sitting meditation and walking meditation” (Bernay, 2014, p. 61). During their first year of teaching, the five participants kept a fortnightly journal and were interviewed about their experiences three times over a twelve month period. Each beginning teacher reported that they had developed their own mindfulness practice, which they used in daily activities. Several only used formal mindfulness practice later when they felt overwhelmed with stress. All used body scan and breath awareness regularly and were aware that they were more often observant and in the moment. By Terms 3 and 4, having established regular practice, the teachers all felt they were responding more mindfully and were less stressed. Overall the teachers showed greater resilience through using mindfulness and were “more authentic in their teaching” (Bernay, 2014, p. 65).

Not all the research investigating the effects of mindfulness for teachers has been positive. The PhD thesis from the study by Copek (2018) into the effects of a mindfulness-based intervention taught concurrently to students and their teachers on the levels of mindfulness, stress and burnout of the teachers reported no significant improvement in any of these measures. Her work involved 12 teachers from two charter schools in the state of New York in the US. External mindfulness facilitators implemented the program. Teachers reported having difficulty applying mindfulness to themselves, even though they were being taught mindfulness at the same time as their students, primarily because they needed to maintain class behaviour and discipline students if necessary during the mindfulness sessions. A suggestion for improvement was to have more training for staff before the sessions and to have the class materials available to the teachers in advance of the lessons so they could prepare and practice using the activities.

There have been sufficient studies on school-based mindfulness programs to enable meta-analysis of these studies. In one such study Carsley, Khoury and Heath (2018) analysed 24 studies involving school-based mindfulness programs for their effects on youth mental health. While they found small to moderate positive effects on mental health of young people, the effects found differed depending on whether the mindfulness intervention was implemented by a visiting expert or a teacher known to them. The only studies with a significant effect on mental health and wellbeing measures at follow-up were those where the mindfulness intervention was implemented by teachers rather than outside facilitators. This highlights the importance of having a known teacher involved in any school-based mindfulness program. Interestingly, the only studies where significant effects on specific mindfulness measures occurred were those using outside mindfulness facilitators.

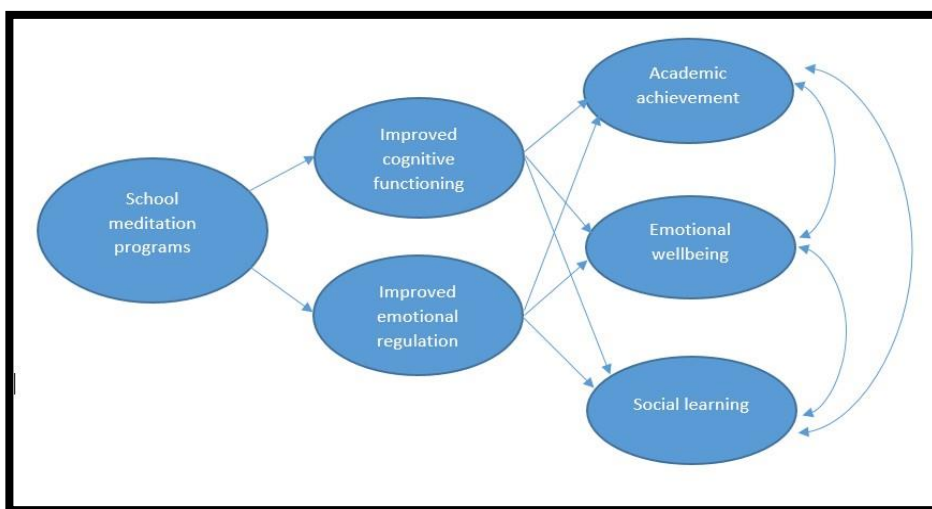
2.3 Mindfulness and the Australian Context

Mindfulness forms a part of the curriculum in many educational institutions abroad and is increasingly being adopted in Australian schools (Smith, 2016). As described earlier there is a strong research base internationally for the programs being used, but there is little Australian-based research on mindfulness programs in local schools, though the amount of research undertaken has increased in recent years. Of the Australian studies discovered as part of this literature review, they were almost entirely focused on small groups of students, were qualitative in nature, or pilot programs. These studies mainly involved primary school students (Joyce, Etty-Leal, Zazryn & Hamilton, 2010) or those studying at tertiary institutions (Hassed, de Lisle, Sullivan & Peer, 2008; Van der Riet, Rossiter, Kirby, Dluzewska & Harmon, 2015). Very few studies feature mindfulness programs for secondary school students. Thus, the investigation of the efficacy of mindfulness programs in Australian schools is in its infancy and is an area which is in need of further research attention.

Rocco (2012) developed a review of mindfulness for wellbeing programs in Australian schools. She commented on the dearth of published studies despite the development, particularly in the United States, of several mindfulness-based programs. She noted that individual teachers were often introducing mindfulness (and other wellbeing practices like yoga) into their classes as they understood the benefits from their personal experience. Rocco (2012) found that, “a school with a commitment to cultivating mindfulness among staff and students is a rare jewel; the field of mindfulness in education is still in its infancy.” (p. 17).

In their review of school-based meditation interventions (only two of the 17 studies reviewed were Australian based), which included mindfulness programs, Waters and colleagues (2015) proposed a model for the action (see Figure 1 below). This model draws together these interventions suggesting that they improved both cognitive functioning and emotional regulation. Improvement in each of these areas acts to enhance social learning, emotional wellbeing and academic achievement. This model suggests that these areas are interrelated and that therefore an improvement in one area could have a flow on effect on the other areas (Waters et al., 2015). The researchers (Waters et al., 2015) found positive results for the use of meditation, including mindfulness, for the wellbeing and achievement of students in these schools, though they noted the preliminary nature of many of the studies and recommended further studies with more rigorous design.

Figure 1: Model for mode of action of meditation programs (Waters et al., 2015)



Mindfulness training and practice has been shown to improve attentional skills in novice practitioners (Becerra, Dandrade & Harms, 2016) based on a study of a group of Western Australian university students. This suggests that mindfulness training of school students could produce beneficial results in a relatively short space of time. Johnson, Burke, Brinkman and Wade (2017) carried out a large study of students learning mindfulness through the .b MiSP curriculum in an unsuccessful attempt to replicate the findings of an earlier study by Kuyken (2013). Their repeat study did not show significant ongoing beneficial effects of the mindfulness intervention for students and the researchers concluded that the correct recipe for implementing mindfulness at schools has yet to be determined.

As mentioned earlier, an Australian study investigated the impact of worry on working memory and vice versa (Trezise & Reeve, 2015). A sample of 14 year old students (133 students; 97 boys & 40 girls) from an independent co-educational school in an Australian city was investigated over a single day as they prepared for a maths test. Tests of working memory and of worry were carried out several times over the day including before the problem-solving test. The results indicated that both working memory and levels of worry can change within a short time frame and have an impact on problem solving ability. A student with initially higher working memory and lower worry will probably maintain these levels and have high problem solving scores, while a student with low working memory and high worry initially will see both these trends continue and their problem solving will be impaired. Therefore, students with low working memory and/or high worry are especially vulnerable to changes which may magnify their initial disadvantage. Thus measures, such as mindfulness training, which can reduce worry could have a significant positive impact on students who may be at risk due to anxiety or poor working memory.

The most recent, large Australian study into mindfulness in a school setting was funded by the Victorian Government and studied the *Smiling Mind* program as it was implemented at 12 Victorian government primary and secondary schools (*Smiling Mind*, 2016). 1853 students (300 primary-aged and 1553 secondary-aged) participated in the study and 104 teachers. Just over half (54.6%) of the student participants were female. *Smiling Mind* teaches mindfulness with emphasis on meditation and uses technology to provide lessons and activities to teachers and their classes through their website. Individuals can access resources, for example guided meditations, as required through the *Smiling Mind* app for phones or tablets. In this study, participating teachers undertook mindfulness training for five weeks before introducing the *Smiling Mind* program to their classes. Then the participating students had a mindfulness session three times a week for eight weeks. Each session involved introductory discussion around that week's focus (for example, meditation activities- belly breathing) followed by 10 minutes of mindfulness meditation. Results from the study include significant improvements in student sleep, concentration and wellbeing with the greatest improvements occurring in students who, at the beginning of the study, had the highest levels of emotional distress. Results from the teacher participants were similarly positive including significant improvements in sleep, psychological distress, tension, concentration and mindfulness. While the majority of students who participated were secondary school students, it is not clear whether there were any age related differences in the effects of this mindfulness program.

The adoption of mindfulness into many schools around the world has outpaced the research (Johnson et al., 2017; Van Dam et al., 2018). While there are many studies into mindfulness in schools, the results are sometimes conflicting and raise more questions about what form of implementation is best, at what age would students have the most benefit from learning mindfulness and how do students experience learning mindfulness at school. Of particular interest is what happens when mindfulness training is embedded as an ongoing focus and practice in a school. This is the subject of the current study and will be explored through the remainder of this thesis.

2.4 Summary

This chapter reviewed the literature in the field of mindfulness in an education setting and focused on mindfulness and students, mindfulness and teachers then mindfulness in the Australian context. While both local and international studies have reported benefits of mindfulness for students and/or teachers, conflicting results and the lack of information showing the most efficacious age and regimen for teaching mindfulness to young people, more research is needed. The methodology, study design, participants and data analysis for this particular study will be described in the following chapter.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This project is exploratory in nature. Its purpose is to gain some evidence about the use and role of mindfulness in an Australian secondary school as most research in this field is internationally-based and/or positioned within the medical or mental health fields. The following sections explain the choice of research type then describe the participants and their recruitment, the study design, a flowchart of the study, data collection and data analysis.

3.1 Qualitative Research

Qualitative research gathers data from a variety of sources with the emphasis on words rather than measurements and on the ways individuals interpret their world (Bryman, 2012). This research approach tends to be used to generate theories rather than test them (Bryman, 2012), which aligns with the goals of the proposed research project. Several Australian studies about mindfulness are qualitative in nature (e.g., Campion & Rocco, 2009, Hobby & Jenkins, 2014). This methodology is particularly relevant in a new or emerging field of study when there is not a large knowledge base (Robson, 2002).

3.1.1 Exploratory Approach

There is little knowledge about the use of mindfulness in secondary schools in Australia. Thus, the main purpose of this research was exploratory rather than descriptive, explanatory or emancipatory (Robson, 2002). Before one can be definitive about the best way to teach mindfulness, there is a need to discover the ways this practice is actually being carried out and what it looks like in different settings. An exploratory approach informs the formation of the research questions to ensure that they are richer and more holistic in nature. For example, “What is the student experience of the mindfulness program in their school?” and “How do staff feel about the effectiveness and implementation of the mindfulness program at their school?” rather than “Is the school mindfulness program effective?”.

3.1.2 Case Study Design

Case study as a research method can be summarised as an empirical, in-depth study of a contemporary phenomenon, in its context, where there are multiple variables of interest and where multiple sources of evidence are used (Yin, 2009). Yin (2009) states that the decision on the type of research method to use can be guided by answers to the following three questions:

1. What is the form of the research question?
2. When does/did the phenomenon of interest occur? and
3. Does the researcher have control over behavioural events?

Case study is particularly suitable to investigate the ‘how’, ‘why’ and sometimes ‘what’ questions of contemporary events where the investigator has no control over behavioural events. Research using case study design was the most appropriate way to answer the research question as the question being investigated was finding what was the experience of a mindfulness program for students and staff, a “what” question, and the study investigated the current school mindfulness program in-depth. Additionally, multiple sources of data were used; student survey, student focus groups and multiple staff interviews.

Key to case study design theory is the use of several different sources of evidence. Multiple sources of data allow triangulation and increases the rigour of the research (Robson, 2002). The various data collection methods each make their own contribution to the case study. Surveys allow efficient collection of data from large numbers of individuals, and in this study provides both qualitative and quantitative data. Focus groups give information about the variety and breadth of experiences of a smaller group of participants but gives the interviewer the opportunity to follow interesting lines of enquiry as they arise (which is not possible in a survey). Individual interviews are valuable to obtain in depth information but they are very time consuming. Document review is useful to capture both contextual and empirical information regarding the setting and the focus of the study (Robson, 2002). In the current study, context was obtained by observing a class mindfulness session and through reading various documents including a book written about the history of the school, several editions of the annual magazine, school mission statement, statement of the school’s values, some mindfulness resources and excerpts of an internal survey relating to student satisfaction and wellbeing. Finally, the study involved collecting information about staff and student experiences, which had occurred already, rather than controlling events. Case study enabled the development of in-depth knowledge of and insight into a mindfulness program and its impact in an education setting.

3.2 Participants

3.2.1 Selection of participating schools

Through professional networks, the researcher discovered several Melbourne schools that taught mindfulness as part of their secondary school curriculum. Others were identified

through media reports or via school websites. Only one Victorian school was identified as having a mindfulness program through publication of a journal article. These schools formed the pool of suitable schools who were approached to participate in the study. Contact was made with several of these schools where the prospect of research was raised. There was no reply from one (after several emails), a refusal from another (the reason given that students had already participated in several research studies) and interest from two schools. After a couple of meetings at these schools, one school agreed to participate and the other had yet to decide.

3.2.2 Participating School and Mindfulness

The participating school is an independent girls' school in Melbourne which has classes from three year old kindergarten through to Year 12. The school is divided into an Early Learning Centre (three and four year old kindergartens), Junior School (preparatory to Year 6) and the Senior School (Year 7 to Year 12).

In the Senior School, the focus of this study, there are approximately 450 students with a variety of ethnic groups represented. Generally, just over half of each incoming Year 7 cohort are students continuing from the Junior School. The Deputy Principal (Head of Senior School) was the main contact with the school (particularly initially) for this research and was one of the key drivers for the introduction of mindfulness to the school some years ago.

During 2011, in response to concerns about student anxiety, stress and wellbeing generally and with input from the then school psychologist, Dr Craig Hassed was employed to carry out mindfulness training for 20 staff members who voluntarily participated in a series of weekly sessions at the school. Dr Hassed is an expert in mindfulness research and practice who facilitates training in mindfulness for students and staff at schools and who, in addition to his role as a lecturer to medical students, is responsible for the Mindfulness at Monash programme at Monash University. Each session related to a chapter of his book, *Know Thyself* (2006), which staff were expected to read and discuss as part of the next week's training. While much of the training was to educate the staff about mindfulness and for them to develop their own mindfulness practice, the other facet was to consider ways to introduce mindfulness to students.

Following their training, a mindfulness working group was formed to continue the introduction of mindfulness to students across the school as had been decided by the school administration. This group provided advice and ideas for activities and resources for staff teaching mindfulness. As a priority of the wellbeing policy of the school, it was expected that

mindfulness would be taught regularly in every class in the entire school. For the secondary school students, the focus of this research, mindfulness would be taught by the Home Group teacher ideally daily but at least three times per week in the Home Group time at the beginning of the day.

At the time of the current study, mindfulness had been a regular part of the school curriculum for five years (since it was introduced to students in 2012). The teaching of mindfulness is under the umbrella of student wellbeing. In addition to the usual leadership positions at this school, each class has an elected Wellbeing Leader and a Wellbeing Captain in Year 12 whose role is to promote the importance of wellbeing and activities to improve the wellbeing of students in their class and school-wide. The Year Level Co-ordinators have oversight of student wellbeing (reporting to the Deputy Principal, Head of Wellbeing) and from time to time arrange particular activities for their year level, or for a speaker or for a speaker to address the students. Occasionally, school-wide mindfulness activities are offered, usually to coincide with Mindful May and organised by the Wellbeing Captain and class Wellbeing Leaders with support from staff. The responsibility for providing regular mindfulness instruction for students rests with the HG teacher and they are expected to implement mindfulness at least three times each week in their HG time. Early in Year 7, the students attend an off campus camp and there participate in various mindfulness activities. For staff, mindfulness is regularly used in the weekly staff briefing.

Table 1 (see below) identifies the cohorts who participated in this study, how many participants there were in each cohort and how they were recruited. The table also identifies the types of data that their participation generated.

Table 1: Participants and recruitment

Participant Group	Number of participants	Recruitment process
Staff: Individual interview	6	Invitation to staff (via email or in person) involved in planning, overseeing or implementing mindfulness program e.g. Deputy principal, Student Welfare Co-ordinator, teachers. Signed permission forms collected.
Students: Survey (11-13 years old)	54	Invitation to students who have undertaken the mindfulness program at the participating school. Meeting of interested students where explanatory statement and forms for assent (for student signature) and consent (for parent signature) given out. Signed permission forms collected before survey completed.
Students: Focus groups (11-13 and 17-18 years old)	5 participants from the Year 7 survey group 4 Year 12 students (Each aged 18)	Invitation to students who agree to take the survey. School staff identified some potential participants. Explanatory statement and forms for assent (for student signature) and consent (for parent signature) given out to interested students. Signed forms collected before interview.

Further detail about these cohorts, their recruitment and their participation are detailed in the sections to follow. In order to keep to a minimum, the time required of student and staff participants for data collection, and thus minimise disruption at the participating school, data collection focused on the participants' experience of mindfulness rather than other demographic information.

3.2.3 Survey participants

Year 7 students were invited to participate in the research via invitation and explanatory forms, as well as student assent forms and parent permission forms, posted on the school intranet site late in 2016. The permission forms were collected at a Year 7 assembly, where the researcher also answered questions particularly about the process for the focus group interview. Following this the students with both assent and parent permission forms signed were given the survey to complete (non-participating students left the assembly). Some students were absent due to illness or involvement in other school activities. A total of 54 students completed the survey out of a total of approximately 75 students enrolled in Year 7. Since the survey took place at the end of their Year 7 school year it was expected that any participant would have been exposed to mindfulness while at school so experience of mindfulness was not used as a pre-requisite for participation.

3.2.4 Year 7/8 Focus Group participants

Part of the invitation and permission process involved asking students to participate in a Focus Group interview which would take place on another occasion at school. Due to difficulty organising a suitable time when the students would be able to attend this interview, the focus group interview did not occur until early in February the following year. Hence these students are referred to as Year 7/8 focus group participants to indicate that they had completed the Year 7 Survey and had only just begun Year 8 when the focus group occurred. Five students participated in the focus group interview. They represented students from three of the four Year 7 classes in 2016.

3.2.5 Year 12 Focus Group participants

The Year 12 Co-Ordinator distributed the invitation, explanatory notice and permission forms to Year 12 students and five students, who were all 18, agreed to participate in the focus group interview. Year 12 students are in their final year of secondary school and are undertaking the Victorian Certificate of Education (VCE). On the day of the interview, one of the participants was absent hence four actually participated.

3.2.6 Staff Participants

To maintain confidentiality, the staff participants are only identified with a letter (A-F). At the time the data was collected, the participants held various roles in the school from Assistant Principal, Health Professional to Home Group Teacher as well as having served in other roles in preceding years.

Ms A

A teacher of more than twenty years' experience, Ms A is a Year 7 Home group teacher as well as being responsible for a subject area from Year 7 to Year 12 and very involved with student well-being. She was part of the original group who were trained in mindfulness.

Ms B

As a past Head of Year 12, Ms B was very involved in the process of introducing Mindfulness to the school and was currently Head of Senior School and Head of Wellbeing. She undertook the mindfulness training and regularly led mindfulness activities in staff meetings.

Ms C

The youngest of the staff participants, Ms C was a very diligent and enthusiastic Year 7 Home Group teacher who was completing her second year of teaching post-graduation and the first at this school. She has a family background which emphasises health and fitness. Ms C was a past student of this school.

Ms D

Ms D was a Health Professional employed primarily to support students in the Junior School and had recently completed training, in her own time, to become a mindfulness practitioner.

Mr E

Mr E was also part of the original group trained in mindfulness. He was a Year 9 Home Group teacher and until recent years was Head of Year 12. As well as personally practicing mindfulness, Mr E had undertaken professional development on Positive Education.

Ms F

Ms F had recently been employed as a health professional at the school, was based in the Senior School and was very experienced. When mindfulness was first introduced, there was only one health professional to support the entire school population. As part of her qualifications, Ms F had training in mindfulness and used it when appropriate with individual students.

3.3 Research Design

Ethics approval was obtained to complete this research through Monash University, CF16/1273-2016000672. Following verbal agreement from the school principal to participate in the study, a meeting was held and the appropriate permission form was signed. At further meetings with the Deputy Principal (Head of Senior School), background information about the school and the mindfulness program was obtained and planning for recruiting participants (staff and students) began. The Deputy Principal was the main contact with the school for the study though the researcher was able to meet with other staff and students independently. For example, the Year 7 co-ordinator organised an assembly of Year 7 students to enable the research to be explained and permission forms collected.

The first element of the research study was to discover the student perspective since learning mindfulness was supposed to benefit them. This was done through a survey of the majority of Year 7 students and two focus group interviews, one with the girls who had completed the survey and the other with Year 12 students. Year 7 were chosen as the main focus as they were beginning their secondary schooling. The first year of secondary school is one of great change for students, usually involving a change of school (or at least campus), meeting many new people, loss of friends, making new friends as well as negotiating a different format for each day-having many teachers in a day in different classrooms rather than most lessons with the same teacher in the same classroom. In addition, Year 7 students are also on their own journey of change through puberty. It was logical to investigate the perspective of these students following their first secondary school experience of mindfulness. Many studies have been carried out investigating MBIs in primary school children (for example Joyce et al., 2010), fewer in secondary school students (for example Arthurson, 2017) and many involving tertiary students (for example Van der Riet et al., 2015). One of the unanswered questions in this field is: “When is mindfulness most efficacious for students?”, so gaining insights from Year 7 students regarding their experiences will add to the knowledge base.

In response to some of the comments from the younger students, it was decided that input from Year 12 students, who had been learning and using mindfulness their entire secondary education, would be informative. Therefore, the second focus group was planned.

This student perspective was crucial as staff may believe the program they have implemented is worthwhile but unless the students themselves found it valuable, engaging, relevant (at their particular age and stage of schooling/personal development) and delivered in a way which made the concepts accessible, the mindfulness program would not have maximised its potential.

The next element was focusing on key staff involved in the mindfulness program. For example, the senior leadership of the school (Principal or Deputy Principal) to give the strategic school perspective, staff who actually delivered the program and other staff who may see the effects of the program like the student counsellor or year level co-ordinator. It was important to identify and interview the driver of the development and implementation of the school mindfulness program in order to obtain their insights.

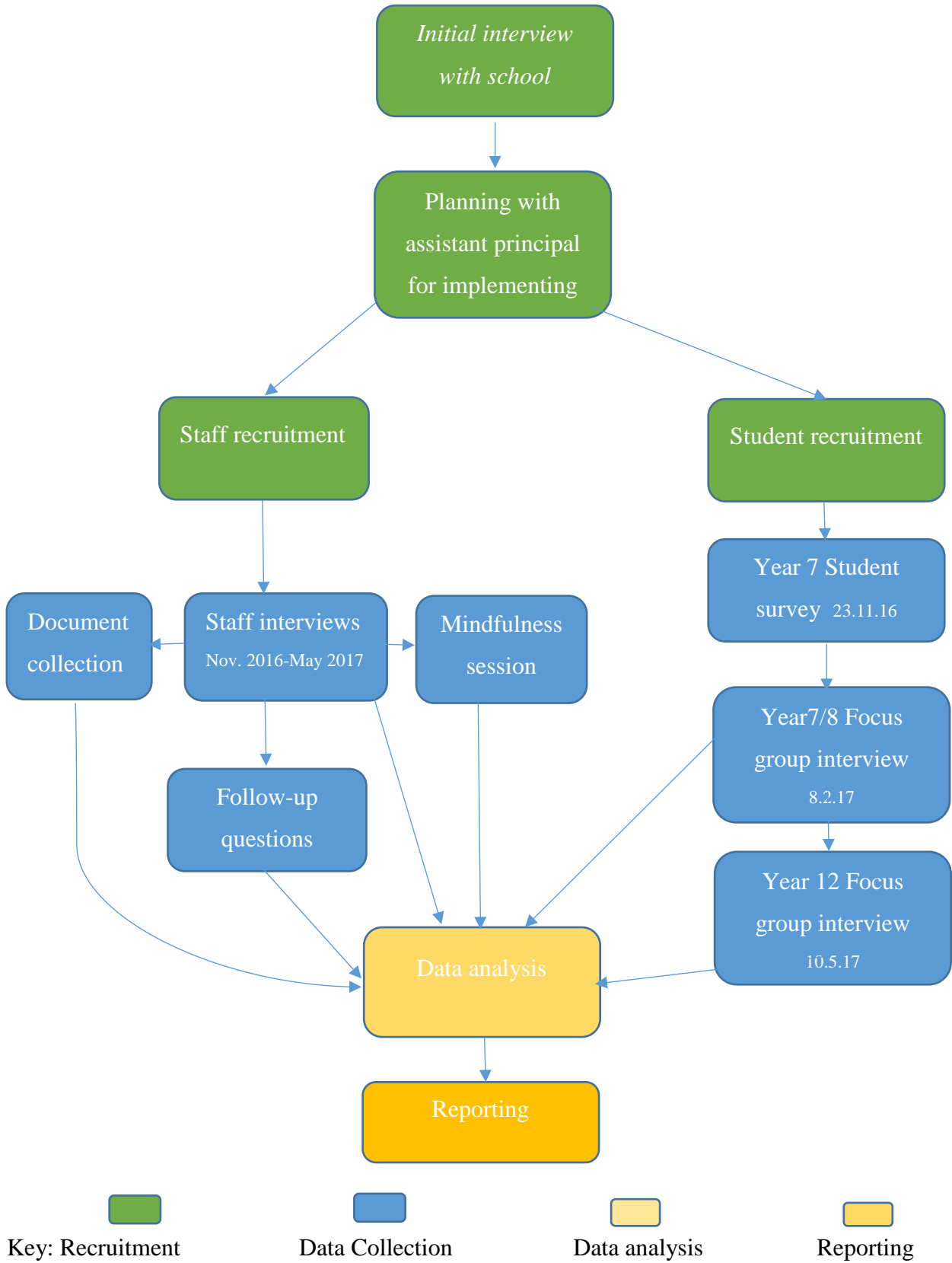
Finally, information about how mindfulness was implemented at the school was gathered from staff interviews, student focus group interviews, from the Year 7 survey, reading school publications, resource material provided by teachers and observation of a mindfulness session in a Year 8 class. These documents and publications, for example a history of the school, provided useful background and contextual information.

The research was carried out at the school between August 2016 and May 2017 and involved 13 visits. The Year 7 survey was conducted on November 23, 2016 while the Year 7/8 and Year 12 Focus Groups occurred on February 8, 2017 and May 10, 2017 respectively. The individual staff interviews, preparation meetings and observation visit occurred where convenient for staff over this time period.

3.3.1 Research Design and Flowchart

The research design including recruitment, data collection, data analysis and reporting is summarised in the flowchart to follow.

Figure 2: Research flowchart



3.3.2 Data Collection Methods

The method of data collection for each of the participant groups is described in Table 2 and is shown below.

Table 2: Data collection method for each of the participant groups in the study

Participant Group	Form of research/data collection method
Staff	Individual, semi-structured interview (see Appendix 5) approximately 30 minutes, audio recorded. Possible follow-up questions
Students: Survey (11-13 years old)	Anonymous survey, mix of Likert scale and short answer responses (see Appendix 4), approximately 30 minutes to complete.
Students: Focus groups (11-13 and 17-18 years old)	Focus group interview, semi-structured (see Appendix 3), approximately 30-45 minutes, audio recorded.

3.4 Data Analysis

The majority of the data collected in this study was qualitative in nature. Since the research was exploratory, the method of qualitative data analysis selected had to be flexible enough and suitable to be applied to the different data sets of student survey, student focus group interviews and individual staff interviews. Thematic analysis was able to be used for the different data sets, was well suited to the research question and could be successfully used by a researcher without vast experience in qualitative data analysis (Bryant & Clarke, 2006). Additionally, thematic analysis has been used in several of the Australian qualitative studies on mindfulness in educational settings (Burrows, 2015; Champion & Rocco, 2009; Van der Riet et al., 2015 & Woods & Moscardo, 2003). In this study, when using thematic analysis, as described by Bryman (2012), responses from the student surveys as well as transcripts of the focus group and individual staff interviews were studied and coded looking for such characteristics as:

- Repeated topics;
- Similarities and differences;
- Words which suggest causal connections; and
- Missing data,

in order to find themes in the data. Details of how the data analysis was carried out for each of the participant groups is described in the sections to follow.

3.4.1 Student Data

3.4.1.1 Year 7 Student survey

The Year 7 survey was developed by the researcher then trialled on some adult colleagues. It was adjusted in response to this feedback. Since this was a small scale study the survey was not piloted with Year 7 students prior to its use in the research study.

Once the Year 7 survey was complete, the answers for the Likert scale questions were recorded in a spreadsheet. For each of the questions the percentage of the respondents who gave each of the possible responses, 1 to 4 using a Likert Scale, was calculated and recorded. For each question, the total number of responses was recorded as not every participant answered every question. This figure was the total used to calculate the percentage for the particular response. The data were aggregated meaning that the totals for 1 and 2 (strongly agree and agree) were combined as were the totals for 3 and 4 (disagree and strongly disagree) and these combined percentages were recorded and presented rounded to the nearest percent.

The results were then considered. Of particular interest were questions which showed a strong response, either positive or negative. It was noted which questions were approximately evenly spread in responses. Questions were grouped together if they covered a similar theme, for example questions about the effects of mindfulness, or about the implementation of mindfulness activities.

The second page of the survey gave students an opportunity to answer questions more fully, sometimes by selecting one or more responses and/or adding their own or through open ended questions. For these questions, the possible responses were recorded with their frequency as were other responses written by the participants with similar responses grouped together. Again, percentages (of a particular response from the responses to that question) were calculated for each question. Interpreting the results was complicated because respondents were able to select more than one response as well as being able to add their own if they chose. As the percentages for each response were calculated, for these questions total percentages were able to exceed 100%.

In one question in the survey, a selection of words were presented to students who were asked to choose a word that best described their experience of the mindfulness program, as well as space to write their own word. One of the first few words given was 'boring' and a large proportion of respondents selected this. Words which may have more accurately described the experience of some students like 'uncomfortable', 'confronting' or 'too quiet' were not included. The realisation that some students may have selected 'boring' as some sort of default for unusual feelings came about during staff interviews and discussions with teachers at other schools who use mindfulness in their classes.

When analysing these questions, similar responses were grouped together for example where students reported that they used mindfulness to help them with study or doing homework or preparing for exams these were grouped together and the frequencies combined. The responses to the questions (with their associated percentage frequencies presented to the nearest percent) were then read again but this time looking for themes, which were indicated by the highest frequencies, and for novel responses. The main themes which were identified from the survey related to Purpose and benefits, Implementation of the mindfulness program and Mindfulness activities. Quotes of relevant student generated responses were recorded to demonstrate some themes which emerged.

3.4.1.2 Student Focus Group Year 7/8

The focus group interview was audio recorded and some notes were taken during the interview session. The interview recording was transcribed saved on computer and also printed out. As well as reading the transcription, the recording was replayed several times as necessary to understand responses, which student was speaking and nuances from their tone of voice, pauses and so on. The conversations were wide ranging and not everything that the students talked about was relevant to the research question thus it was important to filter the responses so that the important, relevant, insights would be highlighted.

This was the first interview session to be analysed so the approach taken was experimental. The transcriptions were read and relevant responses (or responses regarding the teaching, impact or use of mindfulness) were identified which were grouped using the De Bono Direct Attention Thinking Tool PMI (Plus, Minus, Interesting) (The Edward de Bono Foundation, 2014). This tool, which is commonly used at the researcher's own school to analyse data, was used as it enabled the vast number of individual responses to be divided initially into three broad groups. Subsequently each group of responses was analysed so they were organised around common topics. These common topics became the themes which contained positive, negative and interesting features. The interview was then studied to find apposite quotations. Finally, the transcript was read again to ensure nothing important, including singular ideas, was missed.

3.4.1.3 Student Focus Group Year 12

This interview was also audio recorded then transcribed. Notes taken during the interview were referred to when needed to clarify uncertainties. The responses were analysed in a similar way to the other student focus group interview data.

Common themes which arose from the student focus groups were: Perceptions of mindfulness and its benefits, Implementation, Challenges and Personal experiences of mindfulness.

3.4.2 Staff Interviews

Each interview was audio recorded and later transcribed. Some notes were also taken during the interviews. Where necessary the recordings were listened to again in order to decipher correctly the words said and to understand the emphasis or tone of voice of the interviewee.

Then each transcribed interview was read several times. The first reading was just for understanding. Then the answer to each question was copied into a new word document so that all six responses for Question One were grouped together, then Question Two answers together and so on for all the interview questions. Reading this document made looking for

themes and novel ideas much easier. The collated responses, and the individual interview transcriptions were again read, this time with the focus on looking for common elements or themes, which were noted. Finally, the transcripts were read with the purpose of finding quotes from individual staff members to illustrate the themes which have been identified or to describe a novel idea. Every effort was made to report the results in a balanced way so that the voice and views of each participant were heard. However, some were more eloquent than others, or had a more interesting turn of phrase so when the general meaning was common to several participants, the most interesting quote was included.

The themes which were identified were generally the same as for students but with less emphasis on personal experience of mindfulness.

3.5 Summary

In this chapter the design and implementation of this qualitative, exploratory, case study research study has been articulated including its participants and data analysis. The study findings are described in the chapter to follow.

CHAPTER 4: FINDINGS

4.0 Introduction

In this chapter the findings from the four data sets - staff interviews, Year 7 survey, Year 7/8 focus group interview and the Year 12 focus group interview - will be described. Responses from both student focus groups will be described together in the ‘Student Perspective’ sections. It will be noted when the responses from the two groups were similar and particularly when they differed. Each cohort involved was asked questions around the implementation of mindfulness, their experience of mindfulness as well as challenges and suggestions for improvement. The findings are structured using the five key themes that emerged, so that the perspectives from staff and students can be readily acknowledged. The themes are:

- Purpose and Benefits;
- Independent Use of Mindfulness;
- Training;
- Time and Timing; and
- Mindfulness Activities and Resources.

4.1 Purpose and Benefits

4.1.1 Staff Perspective

All the staff interviewed demonstrated an understanding of mindfulness and the benefits its practice can provide. They used the words “skill”, “tool” or attribute” when describing the role of mindfulness. It was mentioned as being one in a repertoire of tools students could use to maintain or improve their wellbeing.

Ms A commented,

The rationale for the introduction of mindfulness, I believe, is that it’s another ticket, it’s another attribute that can be used in the whole arsenal of well-being if you like, that is a way of achieving success, that it’s a way of focus as opposed to the spiritual capacity of the individual through prayer, because we understand that not all students may have a faith or prayerfulness and that opportunity just to calm the mind so mindfulness is of course, that focus, the ability to control the mind and to have that awareness and just the same way that we exercise our bodies we nourish our bodies with good food we also need to do the same with mindfulness and match that with our wellbeing.

They agreed that learning mindfulness was beneficial for students at this school to help them cope with the busyness and challenges in their life currently as well as a tool to help them maintain their resilience and wellbeing throughout their lives. Ms A also commented,

As I explained to the girls, they have busy lives and it is really important to be able to switch off, that it is important to calm the mind and to give ourselves the space and a pause in our busy days and just know that we can punctuate our day with episodes of mindfulness, just to bring us back to that focus.

In the same vein Ms F remarked,

It is a tool for them to have and just try to teach them a specific strategy to deal with stress and to enhance their wellbeing overall as well...

Year 12 actually experienced specific training around mindfulness, in something that I think is recognised as a useful tool for students in VCE to help balance that stress that they are feeling.

All the home group (HG) teachers interviewed did occasionally use mindfulness in their classes at times other than the formal mindfulness session, usually with the entire class but sometimes with individual students.

Ms C described the observations of one particular student,

One specific student who jumps to mind... gets exhausted towards the end of term and she doesn't sleep right and all that sort of stuff and when I practice mindfulness with her she functions better during the day... her taking a bit of time to do some colouring in or to sit and listen to music or whatever she is far more focussed and can function much better for the remainder of the day.

Even though all the participating teachers used mindfulness in their classes, there were anecdotal suggestions that not all HG teachers did. For example, Ms C said,

At Year 7 we have done quite a bit of mindfulness but I think many of the Home Group teachers are not.¹

4.1.2 Student Perspective

The majority of the Year 7 students surveyed were familiar with the term ‘mindfulness’ (85%) but only 28 % said they enjoyed the mindfulness program and 32% said the mindfulness activities they did were fun.

However, for a substantial proportion of the cohort, learning mindfulness was beneficial. For example, one half (50%) of the Year 7s agreed that “Learning mindfulness allows me to calm myself down”, while 43% agreed with the statement, “I can use mindfulness to help me focus on the lesson or doing homework”. Furthermore 37% selected, “When I use mindfulness I don’t worry as much.” Also, nearly a quarter (24%) agreed with each of the statements about using mindfulness to; manage worry about schoolwork, when something upsetting happens and to go to sleep. Interestingly, 32% of the students surveyed disagreed with the statement, “I only use mindfulness when I am told to”.

These responses were borne out in the extended response section of the survey where students selected benefits of the mindfulness program: manage my thoughts (13%), emotions (9%), stress or anxiety (19%); focus my attention (20%), learn better (6%), sleep better (22%).

The 61% of Year 7s who said that” the mindfulness program enabled me to stay the same”, is not necessarily a negative finding as students in both the Year 7/8 focus group and the Year 12 focus group talked about using mindfulness to maintain or return to their equilibrium, especially in the face of stressful or upsetting events in their lives.

Other interesting responses were to the question about what was the preferred mindfulness meditation: blank (7%) and ‘didn’t do meditation’ (4%). When asked to describe when they had used a mindfulness technique, 24% selected ‘in class when told to’ and 19 % wrote that they hadn’t used mindfulness.

Other responses from this question about when they used mindfulness, for which there could be more than one response, indicated that besides the students who used mindfulness when their teacher told them to (24%), a sizeable proportion used mindfulness independently on

¹¹ APA convention calls for quotes of less than 40 words being integrated into the text rather than standing alone, but for ease of reading the staff and student quotes will be presented as shown.

other occasions, for example to go to sleep (24%), for study purposes (7%) or to manage stress or anxiety (6%) which is a most promising finding.

Unfortunately, the fact that 19% of the students surveyed reported not using mindfulness at all indicates that some students have not experienced learning or using mindfulness at school so the wellbeing and performance benefits are not currently available to all students. The lack of mindfulness was also mentioned by girls in both focus groups. One of the Year 12 focus group participants said,

This year we haven't done any mindfulness because my teacher doesn't really want to do mindfulness in the class sort of thing.

All the girls in both focus groups were able to clearly articulate a meaning of mindfulness for them. This meaning coincided well with the definitions which mindfulness experts, and those of the teachers, use but were framed from their own experience. Examples from two of the participants are:

I think mindfulness is something that you do to calm you down, so if you are having a lot on your mind you could use mindfulness as a way to take a break from everything and just re-set your mind.

Year 12 student

I'd say it is being aware of your surroundings, cuddling yourself and relaxing yourself.

Year 7/8 student

The students gave a variety of reasons for using mindfulness. These all related to perceived benefits for example to calm down when stressed, to be able to focus on tasks, to be able think clearly and so enable them to tackle tasks, to cope with their busy lives, to relax enough to go to sleep, to calm themselves down when they're upset. One of the girls from the Year 7/8 focus group said,

In a school environment, you are usually stressing about some kind of home work or some kind of work that you are having trouble with, there is usually something but when you are just sitting there doing mindfulness like colouring or something, it's just nice to be able to focus on one thing that is not stressful at all.

The students understood immediate benefits of using mindfulness at school, particularly in the last two years of secondary school, the Victorian Certificate of Education (VCE), but also felt the advantages of learning to use mindfulness would also be utilised post school. One Year 12 student explained:

Because you are already in a learning environment and learning things, you may as well teach it now when you have got stress but also it gives you the ability to deal with it in the future and it just sets you up for the future, it's one of the skills from school that actually applies out of school.

The students also described the effects of a session of mindfulness and about using mindfulness to help them completing school work or homework:

I do feel very relaxed when doing mindfulness, just being able to be free of the stress can also make you look at like all the tasks and things you have to do more clearly and like "oh my gosh we have so much homework" but "okay we will do this and this".

Year 7/8 student

I just end up feeling very grounded, calm, I may not have the confidence, I can approach anything but I know that I am not going to do my worst, I am in a stable spot and I can at least attempt anything that needs to be done, really just a point of getting the stress under control, the anxiety and just being like "okay I am prepared as I can be".

Year 12 student

Some of the students found using mindfulness helpful to manage their stress levels prior to and during School Assessed Coursework (SAC) or exams. There was variation in the student experiences about how long the calming or focusing effects lasted and how often they needed to practice mindfulness to achieve these. Two of the Year 12 students commented:

It depends on what I am doing mostly, if I have a SAC the next period it will probably last through about half of the SAC and it's not like I get to the same levels of anxious it's just sort of start getting the normal levels again and generally it just stays like that for the rest of the day, however if I have another one I have like the focused calm grounded feeling for a couple of hours, it really just depends on what's going on and

generally I won't top it up until it reaches the tipping point again when I can't focus on absolutely anything, so I more use it as a back track from the tipping point rather than a trying to keep a level all of the time.

Well after I did mindfulness, like especially closing your eyes and focusing on sounds and that sort of thing I felt a lot more focused, like a feeling like you get when you wake up in the morning and everything like looks different, like when you wake up from a nap, that's how I feel, refreshed.

One Year 12 student used mindfulness to reclaim her equilibrium following an exam:

I can do the mindfulness afterwards, cos afterwards you have that moment where you are completely drained and the mindfulness just gets me back up to the "okay, it's fine, it's done. I can't change it now."

When asked whether mindfulness should continue to be taught at their school, all the Year 7/8 Focus Group participants answered vehemently,

Yes!

The Year 12 students confirmed this view when asked whether learning mindfulness at school was beneficial and one replied:

Now I would say yes, but if you asked me in Year 7 I would say it's a complete waste of time.

4.1.3 Key Findings

There was much congruence between the feedback from staff and students about the purpose and benefits of learning mindfulness at school.

This feedback has been distilled into the following Key Findings (KF):

- KF 1. Both teachers and students understood the purpose of learning mindfulness as being to help students maintain or improve their wellbeing and performance at school and in the future.
- KF 2. From staff and students who have received instruction in mindfulness the wellbeing benefits reported were: self-calming, to increase focus, to cope with stress or anxiety, to regain equilibrium after assessments or upsetting or stressful situations and to aid with sleep.
- KF 3. The aim of teaching mindfulness to support the wellbeing and outcomes of all students has not been met since not all students have received mindfulness education.

4.2 Independent Use of Mindfulness

4.2.1 Staff Perspective

Staff did not comment on this area except when one teacher, Mr E, was talking about using mindfulness saying,

I think they are slowly starting to realise the benefit of it, especially the senior girls and many of them will just take some time out and walk around the yard, and I see that as a type of mindfulness, so they disengage from the hurley burley of their studies.

Also,

We will go out to the break areas I might get them in a circle and do a bit of mindfulness there with them, it is quite interesting, you take a group out and all of a sudden, the group gets bigger because kids from other classes come out and join you.

4.2.2 Student Perspective

Results from the Year 7 Survey and from both the focus groups indicate that students at this school use mindfulness at times and places not restricted to when they have a mindfulness session in their HG. Interestingly, one third of the participants agreed that they had “used a ‘comma’ or ‘full stop’ (terms for short or longer mindfulness meditation) outside class time” and 32% of the students surveyed disagreed with the statement, “I only use mindfulness when I am told to”. Other information from the extended response section of the survey regarding the situations they had used mindfulness confirmed the independent use of mindfulness on

other occasions for example to go to sleep (24%) or for study purposes (7%). Sometimes girls would practice mindfulness independently at school (2%) but more often they would choose a particular mindfulness activity to use out of school hours, at home, sporting competitions, or work.

All the Year 7/8 focus group participants recounted situations when they used mindfulness independently, either to relax or manage stress, to calm themselves down when they were upset or to help them go to sleep. The following quotes exemplify their sentiments,

Whenever I do mindfulness it is always when I am stressed, I don't do it as a regular thing unless I am stressed but I can always tell when I am on the brink of cracking and I should probably do it before I get to that point but that's always when I do it because instead of tipping over it brings me back to zero ...I get stressed very easily so mindfulness has become a common me thing for to do.

I have an older sister and whenever I get into a fight with her, or I am in a fight with my parents, I pat my dog, my dog always cheers me up. When I do mindfulness outside, I have a chocolate Labrador and she is crazy but whenever I do mindfulness it's the only time she will sit beside me and just relax so we do mindfulness together, it's really nice, we are all quiet, sometimes she falls asleep and it is just very good.

I just sit behind my piano and just play something that I know, I won't learn a new piece to be mindful because I get really stressed out when I try to learn a new piece but I play something I know like a simplified version, and it will be just really calming.

Three of the four Year 12 focus group participants reported doing some form of mindfulness out of school and the fourth student said she instead used prayer which they then decided was a type of mindfulness. One student used prayer as well as other mindfulness activities. The types of activities they chose to use were not usually formal mindfulness meditations but shorter periods of quiet, often focusing on breathing, or colouring or drawing/doodling.

I use it surprisingly often at home if I am stressed. I will just go up into my room either just close my eyes and deep breathe for a bit or if I am at work and it is just getting

busy I will just sort of duck into the stock room and do a quick deep breathe, calm down, close your eyes and focus.

I don't really use any mindfulness outside of school probably because you know, praying works for me best and just to calm down.

I have actually got this book which I named as my stress book so whenever I am stressed I would just draw and colour and I would make random patterns no, yeah and then I have also got this app, this mindfulness app, so it is telling me like deep breathe for like a minute.

Students in both the Year 7/8 and Year 12 focus groups talked about using touch as a means to calm themselves down when they felt highly stressed.

I am a very tactile person and even just stroking calms me down cos it's something I can focus on so rather than just like the auditory or visual meditation. Non-meditations mindfulness it's something to do with tactile feel it, it's like everyone has the feeling like if you are baking something you just touch the flour and it's really soft, like sticking your hand in a bowl of rice, uncooked. It really is nice, a nice feeling.
Year 7/8 student

I just pat my cat and just hug them for about 30 seconds. It's really calming.

Year 12 student

Having learned about mindfulness at school, these girls have discovered activities which work for them and which they plan to use into the future:

I might do guided meditation like once in a while but I don't think I will use it very often, I will do colouring definitely, a lot of colouring.

Year 12 student

Just the concept of mindfulness I do really enjoy as for me it is 100% to ground me and get me a focus again. And that I do need to quite often so I will use that continually, it just won't be meditation. Year 12 student

4.2.3 Key Findings

The main findings have been summarised into the Key Findings below:

- KF 4 When students have sufficient experience of mindfulness at school they are able to use it independently (e.g. develop their own mindfulness practice).
- KF 5 Several students relied on using mindfulness to cope with their everyday lives.
- KF 6 Not all students who have their own mindfulness practice use mindfulness meditation.
- KF 7 Those (focus group participants) who currently use mindfulness independently expect to continue to do so in the future.

4.3 Training

4.3.1 Staff Perspective

One of the staff key to driving the teaching of mindfulness said,

I suppose you just have to keep coming back to that if they have got new staff how is the training? Doing it to re-train them; you know are they feeling comfortable, how are our resources, have we got a bank of them, that sort of thing. We have looked at that. Ms B

Of the six staff interviewed, only three undertook the mindfulness training taken by Dr. Craig Hassed in 2011 prior to the introduction of mindfulness instruction to students in 2012. There has been a significant change in staffing over the school meaning that there is no guarantee that the Heads of Year Levels and HG teachers, those responsible for teaching mindfulness to students, have received any formal mindfulness training.

All staff participants reported that there had not been any formal mindfulness training for staff since that time. However, they all referred to participating in short mindfulness activities which are offered by senior staff in the reflection segment of the weekly staff meeting on

Monday mornings. This provided some informal modelling of types of mindfulness activities for staff to draw on.

A common factor in the confidence, consistency and depth with which mindfulness was taught by staff was the amount of training the staff had received. The difference was stark between those who had participated in the original mindfulness training and those who had not. Trained teachers routinely lead mindfulness activities, especially mindfulness meditation, themselves rather than using prepared resources like You Tube videos or relying on mindfulness colouring. One of the teachers trained in mindfulness said,

I usually conduct my own mindfulness because I feel quite comfortable in going through a little meditation and that sort of thing. Ms A

Another trained mindfulness staff member mentioned their own mindfulness practice and when asked about the support available to staff said staff could ask for professional development. They commented,

We can't do the 20 minute mindfulness thing because we just don't have the time but I have done one minute, five minute sessions....

If you do the same thing time and time again the kids are going to get bored so you want to mix it up. Mr E

This contrasted with the lack of knowledge and confidence to appropriately teach mindfulness experienced by a teacher without training in mindfulness. Despite her interest in health and wellbeing Ms C said of mindfulness meditation and teaching mindfulness,

I don't feel that I know enough about it to do that yet but I would love to learn enough about it to be able to do it, ... at Year 7 we have done quite a bit of mindfulness but I think many of the Home Group Teachers are not... I would love to have more education on ... different ways to deliver mindfulness and to encourage the students to engage in mindfulness.

We talk about the fact that it is a priority a lot but we don't talk about how it is delivered, we don't talk about how you can become more educated in the area, it is just expected.

Ms C

One untrained staff member mainly used mindfulness colouring with their class or recorded activities. They tried to encourage engagement and variety in the activities by instituting a class roster so that a different pair of students was responsible for running a mindfulness activity each Monday in Home Group. I observed one such session. On that particular day one of the girls was absent and the other had forgotten to prepare anything. Another student volunteered to lead the session. She played a guided meditation from an app on her phone, walking around the tables so the other students could hear as there was no amplification. The students all sat quietly for the length of the meditation.

On the knowledge and use of mindfulness by staff over the time since it was first introduced Mr E commented,

I think mindfulness has not continued with the same flourish or enthusiasm as it started off and that happens with programs, but I don't think it has ran out of steam I think it has just lost its direction because people that have come in are not aware of it or don't understand it fully.

4.3.2 Student Perspective

Students did not comment specifically about whether their teachers had training or not in mindfulness but they did describe their experiences learning mindfulness (or not) from teachers, their confidence, activities used and how mindfulness was implemented. From these reports, it is possible to discern the teachers' different levels in expertise with mindfulness.

Some respondents of the Year 7 survey (4%) stated that they did not undertake mindfulness meditation at all and others (7%) left this question blank, suggesting that their teachers had no training in mindfulness. Similarly, when students described classes where mindfulness colouring was the predominant activity, this suggests little experience with mindfulness on the part of their teacher. According to one of the Year 7/8 students,

In our class, throughout the entire year we didn't do a lot of like the whole like body, like your fingers and stuff we just did a lot of like silent colouring in, to be honest we just did like a lot of colouring and like a lot of, like, we just, every General period, no

matter what we were doing we would always just try and do it sort of mindfully and sort of quietly and just sort of relaxed and sometimes our teacher would play music.

Another Year 7/8 student commented that her teacher relied on pre-prepared resources for mindfulness. She said,

Usually our teacher wouldn't run it she would get, record like YouTube videos or something like a recording to run it through so it was more professional to do it.

Some students also recognised that their teacher was confident and experienced with using mindfulness. One Year 7/8 girl explained,

I think my teacher, she would be kind of passionate about doing it so she has tried to sort of squeeze it in when we could in a Home Group and like, usually what we do is just the sort of sit down and close your eyes and think about the body but, ... whenever we had a bit of spare time in the class, she would try and fit that in.

The main suggestion for improvement from the Year 7 survey was for the mindfulness sessions to be more interesting (32%), while 22% asked for more variety and flexibility in mindfulness activities. This view was supported by this opinion ventured by one of the Year 12 focus group participants,

I think having a mix is really important because for some students the meditation might not really work, for me it does not really work but I like the colouring, the positive videos.

Rigidity in mindfulness activities or their implementation was raised as a challenge by students in the Year 7/8 focus group. One of the participants captured this fixed approach when she said,

Our Teacher would only ever let us sit on the chairs because if we did anything else he would think it was stupid or irresponsible but there was one way of doing mindfulness -you sat down your chair and you had to be sensible about it... just sit properly in a chair, knees together, feet together, hands crossed over at the top with our eyes closed, chest down and shoulders down.

Another Year 7/8 student made this observation,

Sometimes I think the teachers don't really know the right thing to do when it comes to mindfulness.

Infrequent mindfulness sessions, limited repetitive activities, regimented instruction or simplistic activities reduce the effectiveness of mindfulness instruction. Training and refresher professional development in mindfulness would increase the confidence and expertise of teachers responsible for teaching mindfulness and mitigate the challenges described by the students and thus improve their learning and experience of using mindfulness.

4.3.3 Key Findings

The significant points from the staff and student data sets are summarised in the following Key Findings.

KF 8. Currently not all staff with the responsibility to teach mindfulness have received any mindfulness training.

KF 9. Staff without training tend to use simpler activities like mindfulness colouring rather than mindfulness meditation, or may not use mindfulness at all.

KF10. Training in mindfulness is necessary in order for staff to teach it effectively.

4.4 Time and Timing

4.4.1 Staff Perspective

All staff interviewed stated that some mindfulness activity should occur at least three times each week and that this should occur in HG time in the morning, before the first class of the day. The reality they reported often varied from what was expected. As Ms A commented,

I don't know whether it is necessarily practiced, it is supposed to be a daily ritual but we only have 10 minutes for Home Group and I know that some members of staff try and make an effort that they practice some sort of mindful activity at least three times a week but as I say, it is left really to the staff member to do that.

Time was an issue for all the HG teachers interviewed. There were two elements which arose as teachers described their experiences teaching mindfulness.

The first element mentioned was the difficulty staff had actually fitting in any mindfulness at all amongst all the tasks which must be completed in HG time. Rather than three or more times a week, mindfulness sessions, teachers reported, sometimes only occurred once a week or less. If a few minutes of time were found to attempt a mindfulness activity it tended to be rushed, and possibly done by some only because it was a task to be ticked off. Mr E noted,

I do that in Home Group time, so it is not a long time, we only have 15 minutes in total so by time you do the roll and the admin things you probably got, at most 5 minutes.

The second issue was that the designated time for mindfulness, HG before the first class of the day, was too short a time to complete anything except very short activities which had the consequence of restricting the type of activities teachers could present and also the depth of the mindfulness instruction. Teacher F explained,

I think, you know, we almost need like a kind of, a kind of whole school curriculum in mindfulness too so it's developmentally planned like we plan other things. So, we can understand on how we do teaching in prep verses how we teach in Year 5 and how we teach in Year 9 and then Year 12 so that it is mapped out and so the kids aren't doing the same things over and over again as well and it is targeted for the age group and needs.

On a more positive note, two of the HG teachers reported regularly taking mindfulness activities at other times instead of in HG time. For one teacher, this was following HG when they were taking the class for their subject (all HG teachers also teach that class at least one subject) and occasionally at other times during class when the teacher observed the class becoming very loud, students appearing agitated or to break up long periods of learning and to encourage student to refocus their attention.

Whenever a morning Home Group roll call backed onto one of the subjects often I would take the opportunity to have a five or ten minute segue from roll call and start off with mindfulness, particularly if it was in the early part of the week.... sometimes when they are very busy and the crescendo the volume is increasing and I know that through that they are also becoming agitated I say "okay pens down, let's put our laptops down" and just for 10 minutes and then just pause, even in the middle of a particular subject, or a lesson and just give them the opportunity just to unwind, let's

do a little bit of mindfulness and physical activities and just feeling the stress in our bodies so relaxation, that sort of thing.

Ms A

The other teacher regularly ran mindfulness activities, organised by students on a roster, in HG each Monday but often used time in the general period (twice a week immediately following lunchtime for 40 minutes) if there were no organised activities (which are co-ordinated by the Head of Year for student pastoral care).

Thus, the amount of time students were able to practice mindfulness as well as the quality of these sessions was inconsistent therefore reducing the effectiveness of mindfulness for some students.

4.4.2 Student Perspective

Unfortunately, the fact that 19% of the Year 7 students surveyed reported not using mindfulness at all indicates that some students have not experienced learning or using mindfulness at school. This suggests that the teaching of mindfulness was inconsistent across the Year 7 cohort. When asked about challenges to getting the most out of their mindfulness sessions 6% mentioned rushed classes and 9% listed the timing of the mindfulness session as a problem.

Despite questions about when they undertook mindfulness, most student responses focused on the circumstances which prompted the use of mindfulness rather than the time it was taught at school. However, as a suggested improvement, 11% of the Year 7 participants asked for longer or more frequent mindfulness sessions at school while 7% suggested having sessions at times other than lunch or the General Period (this occurs immediately after lunch twice a week and sometimes becomes a longer lunchtime when no specific classes are timetabled). The inference drawn here was that these students did not want to lose their free time since this survey, and mindfulness sessions in some classes, was carried out in a General Period.

Students in the Year 7/8 focus group reported undertaking mindfulness activities at varying times throughout the school day and week and for different amounts of time. This reflected the different approaches taken by the individual HG teachers (since only two girls were in the same class). Most commonly the girls described having mindfulness activities with their HG in the General Period which occurred from 1:45 until 2:45, sometimes taking the whole period or in their Personal Development subject which occurs twice a week for 40 minutes.

Well we did it a lot last year during the Personal Development sessions and we initially spent about 20-25 minutes doing it and then we would do something like 20-25 minutes of the body relaxation and then we would do either ease into homework or colouring, which was very helpful.

Only one Year 7/8 student said they routinely used mindfulness in the short HG time at the beginning of the day:

Well, sometimes we did it in Home Room and sometimes before the start of lessons last year but, again it sometimes depends on what teacher is doing it.

In contrast, the Year 12 students reported that mindfulness activities usually occurred once a week in the 10 minute morning HG time.

Regarding the frequency and regularity of the mindfulness sessions, the participants mostly said that the mindfulness activities usually happened about once or twice (or up to three) times a week, but sometimes much less often depending on how busy it was and who your HG teacher was. One student said,

We did it about three times a week, I think I would say we did it in Personal Development once a week during the middle of the year but when we had a lot going on and there was not enough time for Personal Development, sometimes we didn't have it all, I would say about once a fortnight.

Year Y7/8 student

In response to the statement in the Year 7 survey, “Besides the mindfulness program, there are other times at school when we use mindfulness.” 37% of the participants agreed which is a promising finding. From the experiences described by the focus group students it appeared that there was only occasional impromptu use of mindfulness during regular class time. For example, one Year 7/8 student said,

Whenever we had a bit of spare time in the class, she would try and fit that in.

Mention was also made by one of the Year 12 focus group participants of some special mindfulness activities and events with invited speakers which were held for the entire Year 12:

On camp this year we had a few speakers come in and do mindfulness sessions with us in the city and talk about nutrition and mental health and that sort of stuff.

4.4.3 Key Findings

Thus, the Key findings around the theme of timing are summarised below:

KF11. Due to time pressures in many classes, mindfulness instruction is sub-optimal both in terms of frequency and duration.

KF12. The expected, short, HG time-slot for mindfulness restricts the type of activities used, reduces skill development and prevents practice of mindfulness meditation for longer periods of time.

KF13. Some HG teachers organise other, longer periods of time for mindfulness and there is occasional incidental use of mindfulness at other times (like just before a test).

4.5 Activities and Resources

4.5.1 Staff Perspective

The mindfulness activities used by HG teachers differed. Some used a variety of activities while others tended to use the same activity. Not all the teachers taught mindfulness meditation, some lead meditations themselves while others used pre-recorded meditations from online sources like You Tube, Head Space or Smiling Mind.

In some classes, at least some of the time, mindfulness activities were student planned and lead. Mr E explained,

The Wellbeing Captain I have had the last two years, I gave her the job, that their responsibility is to come up with some Wellbeing activity or mindfulness that we do at least once a week and they have been very good with it.

While teachers generally encouraged the student involvement, the quality and depth of these mindfulness activities was queried by one of the teachers, saying,

We have a Wellbeing Captain for each Home Group and each Tutor Group and supposedly that is part of their role to create a wellbeing roster or a mindful roster but I am not quite sure of the quality of the type of mindfulness activity that the students do and what sort of content; I think it probably works better in the middle to senior years, certainly at the junior levels they don't. They need more of a teacher directed activity.

Ms A

The HG teachers interviewed were aware of trying to maintain student engagement by providing different types of mindfulness sessions. Ms C said,

Not every student is willing to just sit down and, you know, sit in silence and think or whatever particular mindfulness activity to go about so it would be good to have a better range of possible activities that are affective so that we can appeal to more students.

Staff were interested to find out the kinds of activities other staff used and all mentioned the need for opportunities to share and discuss different types of activities and ways of delivery with other staff, and a bank of resources which staff could access and build. Ms A felt,

This would be nice for people to share, I mean that's the thing for staff to have the opportunity just to brainstorm ideas so that people have "Ah that sounds like a good idea", I mean that's what I presume the mindfulness buckets are where they probably have attributes and affirmations that students can pick up.

If staff had the time to be able to share those opportunities so that people can have all of these resources, Smiling Mind, attributes, affirmations, breathing just so that we can build in that, but of course at a busy school...

Teachers' experiences finding and using resources varied. One teacher talked about the different sorts of activities they used, gathered over their years of experience and from some more recent professional development. Another mentioned the Year Level co-ordinator was a source. It did not appear that there was a clearly identified place for mindfulness resources to

be stored and made available to staff. One of the health professionals, who works across the year levels in the senior school when asked about mindfulness resources, Ms F said,

The Student Captain has a log in page which has some mindfulness activities but other than that not really that much, that probably really needs to be looked at, at what resources there are...But there is no page that I can think of, maybe on the Personal Development page there might be, I think there are teachers who will put up stuff like in the on the year level pages so say a teacher is really enthusiastic about mindfulness and does a lot in her class might put up something where the other teachers access it.

But it is not like a consistent like, oh I need to find something about mindfulness I will look here, you sort of have to almost be lucky that you are working with a teacher who knows about the others that put up some resources... it is not easy to find the resources not particularly easy if you have not been trained or if you are not sort of have a sort of special interest in it yourself.

4.5.2 Student Perspective

In the Year 7 survey, when asked to describe the classroom setting when they learned mindfulness, the vast majority (74 %) of the Year 7 students found the classroom calm/quiet/peaceful/relaxing. A few found it boring (6%) or awkward (6%) while 13% commented on giggling, restless or misbehaving students. Sometimes lights were dimmed in the classroom (20%) but quite often the normal classroom set up was maintained for the mindfulness session (18%).

There were some preferred mindfulness activities- mindfulness colouring was the most popular activity (32%) followed by meditation/quiet reflection/with music/*Smiling Mind* type activities chosen by 22% of the participants. The main reasons students gave for their choice of preferred mindfulness activity were that it was enjoyable/fun/interesting/not boring (39%) or that it was calming /soothing/relaxing (33%) while a smaller proportion (6%) said it helped them clear their mind /prepare for the lesson. The few who made negative comments about the activities (4%) said it was hard and boring/not enjoyable.

6% stated that they didn't remember doing mindfulness and the blanks left by four students (7%) would suggest that they did not have any experience on which to comment.

When asked for improvement suggestions the most common suggestion was for the sessions to be more interesting or less boring (32%) with 22% asking for more variety and flexibility

in the mindfulness activities. While 11% asked for the sessions to be longer or more frequent. There were a variety of other suggestions for improvement with much smaller frequency and only 6% suggested not having mindfulness.

The Year 7/8 students described several different types of mindfulness activities which they undertook while at school. Mindfulness colouring was mentioned by several students as was some kind of meditation (usually involving sitting still with eyes closed). The specific activities undertaken by the girls varied across the classes. Some classes undertook formal mindfulness meditation with the teacher leading the meditation, others were required to sit in silence focusing on the breath or different parts of the body, some used music while the students sat in silence, and another activity was mindful colouring with music in the background. One teacher played YouTube videos of someone leading a meditation. One class had a session of yoga. The main feature of the students' description of the mindfulness activities they had undertaken was that there was little consistency across the classes in the activities used or the variety of activities a class would experience. The girls gave varying descriptions of the meditation they had tried, for example,

You can sit on a chair, you can lie down, you can sit on the floor, you can lean against the wall, you can sort of like make yourself comfortable and it was just like, like do whatever you like and usually our teacher wouldn't run it she would get, record like You-tube videos or something like a recording to run it through so it was more professional to do it.

Year 7/8 student

Our Teacher would only ever let us sit on the chairs because if we did anything else he would think it was stupid or irresponsible but there was one way of doing mindfulness while sat down your chair and you had to be sensible about it... just sit properly in a chair, knees together, feet together, hands crossed over at the top with our eyes closed, chest down and shoulders down

Year 7/8 student

Mindfulness colouring was a popular activity as is demonstrated in the following quote:

We also did the colouring in and I think that was good, to sort of, just to sort of focus on something else that isn't stressing you out.

Year 7/8 student

Another common feature of the activities the students had experienced was that they all occurred inside the classroom.

The activities which generated the most enthusiasm and discussion were the mindfulness meditations which the students undertook at various times while on their Year 7 Camp early in Term 1. These generally occurred outside. As one of the students explained:

Camp group was very focussed around mindfulness so before any activity the Group Teacher and person from the Camp would get us to sit down, we would do 20 minutes of the just sitting down meditation and I remember one time we went to the camp ground we did it for 20 minutes and, because we were all so quiet and composed and calmly relaxed, all the wildlife just came and sat around us, so after we had finished the 20 minutes we were able to just watch and we had quite a few birds and animals come up.

Year 7/8 student

Another student's memory from Camp was,

Year 7 camp but that was really good in terms of, they weren't too concerned about it, like you do it your way and wasn't there one time how they were like, okay everyone just spread out for 2 minutes and you have just got to sit there by yourself and just think of and just be mindful and yeah, that is one of the best mindfulness experiences I have.

Year 7/8 student

Several girls remembered a particular meditation experience:

I remember one of the mindfulness sessions we got to do, we were all just sitting with each other even though it was just the classic one where we all sit down. We were all sitting in camp chairs facing the outside and were sitting under this really thin shed, it was more just a roof and we were all surrounded by the forest and it was slightly raining, I loved that so much because you could just focus on the droplets on the shed.

Year 7/8 student

That was amazing! They said it lasted for 20 minutes. Yeah, yeah more like 30 seconds. It was just really nice because you had something to focus on and just think about rather than just try and sit down.

Year 7/8 student

The students then discussed how they much preferred to be able to listen to the sounds of nature and practicing mindfulness then was much more effective. One Year 7/8 student commented,

We did do mindfulness when we were on camp and, like I said it was really good when we were outside because you can sort of listen to the birds or just listen to anything. I think it is good to be outside for mindfulness.

The Year 12 students commented that they had more variety in the types of mindfulness activities which were run but since they occurred predominantly in morning HG time they were no longer than 10 minutes in duration. The three students in the same Year 12 HG described having a roster organised by the teacher so that each student in turn was responsible for finding and presenting a mindfulness activity for the class. The kinds of activities described were: mindful colouring, guided meditations, guided breathing, a minute of silence, focusing on something positive, videos or word games.

We have a mindfulness roster so every week a different person comes up with something for mindfulness, typically they end up being meditations just because (inaudible) but we also showed the Kid President motivation speech that we had which is always great, it's generally whatever the person finds, so as I said typically meditations but sometimes it is just a guided breathing or even just a funny video just to calm everyone down.

Another student commented that their Year 12 class did not have formal mindfulness meditation but other activities:

This year we haven't done any mindfulness like last year we were doing a guided meditation in my Home Room but this year we haven't done any mindfulness because my teacher doesn't really want to do mindfulness in the class sort of thing, I think he just wanted to put like, encouraging pictures on the screen and stuff like running videos and stuff like that but not like actually mindfulness where it's like a guided meditation where we all close our eyes.

4.5.3 Key Findings

The Key Findings regarding mindfulness activities and resources are:

KF14. Depending on the teacher, the mindfulness activities offered vary greatly in type, number of different activities used, implementation and student input.

KF15. Except while on camp, mindfulness takes place indoors.

KF16. There is no central bank of mindfulness resources for staff to access.

KF17. There is no curriculum, mapped by year level, for mindfulness.

KF18. No single mindfulness activity meets the needs and interests of all students so provision of various activities is necessary.

4.6 Summary

The 18 key findings described above have been teased out from the staff and student data sets around the themes involving mindfulness at this secondary school. These are summarised in Appendix 1. The main themes identified were Purpose, Independent Use of Mindfulness, Training, Time and Timing and Mindfulness Activities and Resources.

CHAPTER 5: DISCUSSION

5.0 Introduction

In the chapter to follow, the key findings from the study will be discussed to elucidate their significance in the light of the current literature in the field of mindfulness in education. To enable this discussion, related Key Findings (KF) will be linked and from these a number of assertions will be made then discussed. At the end of the discussion of each assertion there will be a response to the research question which underpinned this study so it is beneficial to restate it here:

What are the experiences of participating in a school-wide mindfulness program from the perspectives of staff and students?

There will not, however, always be a direct comparison with the literature in the discussion to follow. This is because this study differs from others in the field in three main areas.

1. The focus of this study is on healthy secondary school students learning mindfulness at school while the majority of studies have investigated primary school students, adolescents with some clinical condition or tertiary students.
2. In this study, the students were exposed to mindfulness as a normal part of their school week over a period of more than a year, rather than as in intervention occurring over a fixed number of weeks.
3. This study specifically investigates the experiences of staff implementing mindfulness at the school, some the teachers who actually teach mindfulness to the students, as well as the experiences of students receiving this instruction.

5.1 Assertion 1

Mindfulness needs to find a meaningful place in the school's approach to learning and teaching (KF 1, 2, 3, 11, 12 & 13).

In making sense of Assertion 1, this section will explore the purpose and benefits of mindfulness, finding the time universally to teach mindfulness and finding the place for mindfulness in secondary school.

5.1.1 Purpose and Benefits

The teachers interviewed articulated their understanding of the purpose of teaching mindfulness to all students was to support or improve their wellbeing with hopefully a flow-on impact to learning. Often this was described using a tool analogy where mindfulness is one tool to support wellbeing which students can use when needed. The principal was paraphrased by one of the teachers (Teacher A) saying, '*our Principal is a strong believer that effective learners who perform academically must also be happy learners*'. In contrast, the students expressed their understanding of mindfulness mostly through how it made them feel rather than using the words 'wellbeing' or 'emotional regulation'. Usually they reported positive outcomes from mindfulness, like an improvement in their mental, physical or emotional state (KF1). The type of language with which the students and staff described mindfulness was far less formal and technical than is used in the literature, for example Kuyken (2013), but theirs comes from a personal, experiential perspective rather than a theoretical one. The kinds of experiences students described were similar to the effects of mindfulness described in a study of 15 sixth grade students from a primary school in North Wales (Hutchinson & Huws, 2018). Like the current study, these students were taught mindfulness by their teacher, rather than a visiting expert, and they had been learning mindfulness for more than a year.

The types of benefits students in the current study described (KF2) confirm findings in the literature especially reducing anxiety (Arthurson, 2015; Joyce, Etty-Leal, Zazryn & Hamilton, 2010) and stress (Bernay, 2014; Kabat-Zinn, 1990) as well as for emotional regulation (Hutchinson & Huws, 2018; Waters et al., 2015) and for help with sleep (Van der Reit et al., 2015). The use of mindfulness by some of these students (and implemented by some of the teachers) to improve focus supports findings in the literature (Becerra, Dandrade & Harms, 2016; Hobby & Jenkins, 2014; Kuyken et al, 2013).

While the students in this study referred to various situations where they found mindfulness to be helpful, the overall impact was to maintain their wellbeing and develop resilience. This supports the findings of Williams, Ciarochi and Dean (2010) in their study showing training in mindfulness can enable young people to cope better with life's hassles. Carsley et al (2018) have demonstrated in their meta-analysis of 24 studies of school-based mindfulness interventions a modest positive effect of these on the mental health and wellbeing of young people, particularly when they are implemented by their own teachers rather than an outside facilitator.

Students and staff used mindfulness to enable students to 'do their best' whether it was to calm down, to manage anxiety or stress, or to focus attention on the current task. There is

growing evidence that practicing mindfulness can improve academic performance of students (Bakosh, Mortlock, Querstet & Morison, 2018) and that mindfulness can reduce test anxiety, (Carsley & Heath, 2018). Students in the current study specifically referred to occasions where they used mindfulness to enable them to undertake assessments or exams more calmly and with greater attention, or to mentally let go of exam experiences once over to focus on the next task. This was particularly true of the experiences of the Year 12 students in the focus group.

5.1.2 Finding the Time for Mindfulness Universally

At present, the students able to reap the benefits of learning mindfulness are those who are fortunate enough to be in the classes of teachers who are well trained and confident enough to teach mindfulness authentically. The less fortunate students may receive some, superficial and intermittent mindfulness experiences, or none at all (KF3). Responses to a particular question of the Year 7 survey which asked when they had used mindfulness indicated that a sizeable proportion of respondents had not engaged with mindfulness at school. One of the possible responses was, 'in class when told to' (24%). Alternatively, students could write their own response, which for 19% of participants was that they hadn't experienced mindfulness (KF3). If they were learning mindfulness at school they could have selected the 'in class' option if they never did it elsewhere. This finding was supported by comments from girls in the focus groups noting that in some classes, in their own experience, the teacher did not use mindfulness. Teachers interviewed also alluded to the differing implementation of mindfulness by staff. It would have been unlikely for a home group (HG) teacher who did not implement mindfulness to volunteer to participate in the study and advertise their non-compliance so it is not surprising that all teachers interviewed taught mindfulness to some degree.

The reality that some students did not receive instruction and experience in mindfulness is a failure in the whole-school, universal approach to mindfulness. This universal approach was part of the wellbeing focus of the school and is also supported by the work of Meiklejohn and colleagues (2012) with the aim to, '*enhance students' capacities in self-regulation of attention and emotions, and buffer the deleterious effects of excessive stress*' (Meiklejohn et al, 2012 p.307). A universal approach to teaching mindfulness would reduce students experiencing wellbeing issues 'slipping through the cracks'. Through personal experience of more than 20 years as a secondary teacher, not all students having difficulties are obvious, nor do they always seek help, especially if by doing so they risk standing out from their peers. A universal approach to teaching mindfulness avoids this problem and develops resilience in all students.

While the intention of the school may have been to have daily mindfulness in HG, and this may have occurred when mindfulness was first introduced, the mindfulness practices that actually occurred during the study were far less frequent and irregular (KF11). There were reasonably large amounts of time in Year 7 timetabled for wellbeing activities but it was expected that mindfulness occurred not then, but in the short home group (HG) time.

The pressures HG teachers were under to complete a multitude of tasks, in addition to mandated attendance requirements, in this short time could result in there being no time for mindfulness (KF11). If there was still time left, what mindfulness activity that could be run had to be short and simple as there was no time to rearrange the classroom, put out yoga mats, distribute material, or find and set up music or video clips to play. Any meditation could only be a few minutes long at most. This need for speed and simplicity could explain why mindfulness colouring was often used, especially by untrained teachers.

The time pressures which teachers face when implementing mindfulness in an already crowded curriculum, and the advantages of allowing teachers some flexibility, was considered by Joyce et al (2010) in the study design for their research into mindfulness intervention for upper primary students. These teachers were given the option to teach the mindfulness theory and activities of the course as a longer, weekly class or divided into smaller sessions spread over the week. They found that the teachers preferred teaching mindfulness in a 50 minute block as it was easier then to create the right classroom environment than when using quick more frequent sessions. However, the teachers still reported the biggest barrier they faced when implementing the mindfulness intervention was finding the time to teach it.

Some of the teachers in the study worked valiantly to ensure mindfulness was a regular part of their students' week and often used longer times, part of a subject period, to conduct mindfulness especially developing their ability to meditate for longer periods of time. On other occasions, mindfulness was occasionally used to refocus and refresh students after a period of intense work or before a test or graded school-assessed coursework (SAC) (KF13). This use of mindfulness is important in helping students achieve their best possible outcomes on assessments as a way to reduce worry and thus mitigate the negative effects of worry on working memory (Trezise & Reeve, 2015).

Providing sufficient time for mindfulness to be taught to all students, and for them to practice, is important if mindfulness is to be truly part of the life of students at school rather than a token effort. While studies have shown that mindfulness interventions over relatively short periods of time can have positive effects on attention (Beccera, Dandrade & Harms, 2016)

and wellbeing (Arthurson, 2015; Hassed et al, 2009), regular practice is needed for mindfulness to increase and the benefits to manifest. If it is left to students to fit in this practice it may not happen (Johnson et al., 2017). Teachers in the Hutchinson and Huws (2018) study used mindfulness in their regular classes following the initial mindfulness training program and some students in the focus groups referred to the mindfulness activities over time becoming part of life, as did several of the focus group participants in the current study. When *Smiling Mind* was used in 12 Victorian schools (*Smiling Mind*, 2016), regular practice occurred at school, sometimes held *en masse* in the school gym or other large spaces, so time was allocated for mindfulness rather than it being left to individual teachers to fit in. In addition, students were encouraged to use the *Smiling Mind* app at other times. The qualitative findings from the *Smiling Mind* study regarding the beneficial effects of using mindfulness, in the words of the students, were remarkably similar to some from the current study.

5.1.3 A Place for Mindfulness

Time spent teaching mindfulness should not be viewed as time which must be squeezed into the already full curriculum. The effects and benefits of learning and practicing mindfulness fit neatly into both the Australian and Victorian Curricula, in the Personal and Social Capability, as it promotes self-awareness and management through recognition and expression of emotions as well as development of resilience and development of social awareness and management (Australian Curriculum, Assessment and Reporting Authority (ACARA), 2011; Victorian Curriculum and Assessment Authority (VCAA), 2017). The school-based mindfulness program referred to in the previous section was developed so that it was mapped to the Australian Curriculum (*Smiling Mind*, 2016). When viewed in this way, mindfulness instruction and practice becomes an integral part of the secondary school curriculum at each year level. This then makes teacher implementation easier and clarifies oversight, rather than responsibility being left with the individual teacher. Giving mindfulness a clear place in a school's approach to teaching and learning will give students the best opportunity to develop their skills in mindfulness and to experience life (the ups and the downs) to the full while maintaining their wellbeing.

Since this study took place, the participating school has already begun strengthening the role of mindfulness and have engaged *Smiling Mind* to work with students and staff to embed mindfulness in the Junior School (Early Learning to Grade 6).

5.1.4 Response to the Research Question

The findings from this study indicate that, from the perspectives of staff and students at this school, the mindfulness program is beneficial but is inconsistent in its implementation.

5.2 Assertion 2

When students receive appropriate, regular mindfulness experiences at school, as well as feel the immediate benefits, they develop sufficient skills and access a variety of different techniques which allows them to continue to practice mindfulness independently (KF 4, 5, 6, 7, 14, 17 & 18).

To unpack this assertion, the following section will consider independent use of mindfulness by students, whether or not mindfulness meditation is used, how the experience of mindfulness is impacted by their teacher, a mindfulness curriculum and the use of mindfulness into the future.

5.2.1 Independent Use of Mindfulness by Students

Many students from the Year 7 survey and in both the junior and senior student focus groups described situations where they had used mindfulness independently (KF4). Some of these occurred at school but often they occurred at home and even at their part-time work. This finding offers new insights as other studies, while encouraging students to undertake mindfulness practice between classes, do not focus on what actually occurs. One study, of students at school regularly undertaking meditation by reciting a mantra, found that some students reported using meditation independently, particularly in times of stress (Campion & Rocco, 2009). Johnson et al. (2017), however, in their investigation into the *.b Mindfulness in Schools* curriculum implementation reported a very low practice of mindfulness outside the classes. In a similar vein to the current study, Hutchinson and Huws (2018) investigated the use of mindfulness by Grade 6 students '*in your life*' and the students often described using various mindfulness practices at school, sometimes in class and sometimes in the playground as well as at other times.

From the current study, the fact that these students used mindfulness through choice, rather than when instructed to by their teacher, shows that the mindfulness education which these students experienced while at school has been most effective. Thus, this school is able to provide the necessary instruction in mindfulness to allow all students the real option to use mindfulness independently. Why is this so important? For mindfulness to be truly effective it must be practiced regularly. Like any skill, the ability to be in the moment, non-

judgementally, and to become less reactive by lowering the sensitivity of the threat response does not occur after one session of meditation (or other practice), but develops over time and with repetition (Meikeljohn et al., 2012). Girls who had experienced frequent but also longer mindfulness sessions were the ones in the focus groups who reported regularly using mindfulness at times of their choosing.

5.2.2 Use, or not, of Mindfulness Meditation

Several of the students reflected that they relied on regular use of mindfulness to enable them to cope at school, to complete homework or to sleep (KF5). This finding was supported by the results of the Year 7 survey. The students from the focus groups who regularly used mindfulness independently identified the particular mindfulness activities which were helpful for them. Some used mindfulness meditation, especially focusing on the breath, while others used some sort of immersive activity like playing piano, dance, baking or colouring in. Some found tactile activities for example stroking a pet calmed them down. The students reported using mindfulness at different times throughout the day, for short or longer periods as needed. The reporting of such a range of mindfulness-inducing activities, as distinct from formal mindfulness meditation, is interesting because these are often activities which are not taught in the mindfulness sessions at school but which the students, having developed an understanding of mindfulness, have discovered are helpful for them.

As described in the previous section, there is a view that regular, continuing formal mindfulness meditation is required for deep lasting changes to occur (Kabat-Zinn, 2013) which was not reflected in the findings of this study. Several of the students reported that they used practices other than mindfulness meditation when they used mindfulness. Perhaps they had not received sufficient instruction and experience in various types of mindfulness meditation to be comfortable using meditation themselves, or to recognise that what they were doing actually was a form of meditation. There seemed to be a view, at least by some students, that mindfulness meditation was only sitting silently focusing on the breath.

While quiet, seated meditation is not the only form of mindfulness meditation, meditation is important and requires effort, especially in the early stages before expertise and habit have developed. One of the HG teachers experienced in mindfulness noted the confronting nature for students of being silent for even short periods of time and the need for practice to overcome that discomfort to subsequently be able to benefit from mindfulness. Timothea Goddard, one of the keynote speakers at a recent Mindfulness Conference in Perth, talked about the 'illusion of choice', that finding you don't like meditation or that it is hard is not permission to opt out.

For teachers to be able to persevere with meditation to develop expertise in their students requires sufficient time to be allocated, as discussed in the previous section, and for teachers to have the expertise and variety of techniques to use. The finding that students who used mindfulness independently expect to continue to do so in the future (KF7) is encouraging as it supports the allocation of time and resources necessary to implement mindfulness at this school.

5.2.3 Mindfulness Experience of Students Depends on Their Teacher

The mindfulness experience of the students varied between classes and depended on who their teacher was (KF14). There were differences in how often mindfulness sessions were held, their length, whether it occurred as part of HG or in the wellbeing class time, or whether there was any ad hoc use of mindfulness by the teacher. Other differences were in the nature of the mindfulness techniques taught and whether a student was exposed to only one or two different activities or a diverse range of activities and instruction in mindfulness (not forgetting the students who did not receive, or did not recognise that they had received, any mindfulness instruction). The implementation also varied between the classes with teachers utilising one or a mix of: routinely leading mindfulness instruction themselves, using You Tube clips or other resources to provide activities or meditations or involving the students in preparing and leading mindfulness sessions by students. This degree of difference in the mindfulness program experienced by students is not common in the literature as usually studies investigate the implementation of a specific mindfulness intervention which has a set curriculum and time span (Britton et al, 2014). In an Australian-based study (Joyce et al, 2010), even when different teachers had flexibility in the timing of the mindfulness sessions, they all delivered the same curriculum, just divided into larger or smaller blocks of time over the course of a week. Another study with large variations in frequency and duration of sessions was between different schools in the study, but they all undertook meditation with a mantra and the length of meditation was not random but the same number of minutes as each student's age since the study contained both primary and secondary schools (Campion & Rocco, 2009). There was some variation in the implementation of mindfulness in the Hutchinson and Huws (2018) study as, though the mindfulness training was carried out at the same time by the one teacher, the regular class teachers were encouraged to use mindfulness activities between sessions as they chose and the participants were not all in the same class.

In the current study, students in the focus groups who reported regularly using mindfulness, and who expected to continue using mindfulness in the future, tended to be girls whose HG teacher had received the initial mindfulness training (which included instruction in

mindfulness meditation). This link could be made since the HG teacher of each of the Year 7/8 focus group participants was known, while some girls in the Year 12 focus group referred by name to their teachers over the years who had been particularly experienced in mindfulness, and they had received training in mindfulness.

Another perspective from the students in the focus groups which came through strongly was the impact of undertaking mindfulness outdoors, as they reported being much more able to sit quietly and focus on the sounds of nature. These experiences were memories from camp, at the start of the year, or from their own mindfulness practice as they reported only doing mindfulness at school inside (KF15). In the future including outside meditation as an occasional activity would be beneficial for students.

5.2.4 Mindfulness Curriculum

In the current study, many of the differences in variety and implementation of mindfulness instruction arose because there was no documented curriculum for mindfulness to which staff could refer (KF17). It was the responsibility of the HG teacher to provide appropriate instruction (with occasional input from Year level co-ordinators or student wellbeing leaders) which was challenging for HG teachers without mindfulness training. Not having a written mindfulness curriculum with the information about the type, frequency and resources for particular mindfulness activities detailed for each year level makes it difficult to ensure each student is taught mindfulness effectively (or at all).

A strong finding from students and some staff was that one mindfulness activity did not suit all students (KF18). As soon as one girl said she preferred focusing on the breath in silence, another replied that she found the silence difficult and liked music or a guided meditation. Some students found sitting still very challenging and liked activities involving movement. Similarly, from the Year 7 survey, while many students reported preferring mindfulness colouring, others described a variety of preferred mindfulness activities.

This difference in preferred mindfulness activity is not surprising when viewed through the lens of learning styles (Fleming & Baume, 2006). It means that in order to allow entry for all students to learn mindfulness, different points of entry must be provided through a variety of mindfulness activities which accommodate different types of learners, for example kinaesthetic learners would probably prefer mindful movement rather than seated meditation. While mindfulness meditation has a major role to play and was the preferred technique of some students in the study, the work of Ellen Langer (2014) has shown it is not the only way to become more mindful and reap the rewards of mindfulness.

A combination of mindfulness offerings would be beneficial. This is especially true since students learning mindfulness as a regular part of school are conscripts rather than volunteers so they may not have the level of motivation or interest seen in participants of voluntary programs.

Providing a smorgasbord of mindfulness activities, and scaffolding their complexity, serves dual purposes. It will have the benefit of increasing student engagement, which is to be valued, but also reduce the distraction, which disengaged students can become, to others trying to practice mindfulness. This in turn will improve the effectiveness of mindfulness sessions and skill development.

5.2.5 Applying Mindfulness Now and in the Future

Once students have experienced a variety of mindfulness techniques, and reflected on this learning, they are more likely to know an activity which works for them and be able to apply it independently. For students at school, each day is different and challenges may suddenly occur so a student needs to be able to call on their mindfulness training at any time and not just for five minutes at HG in the morning.

Common challenges mentioned by students were studying for or undertaking tests and exams. Trezise and Reeve (2015) have described the negative effects of worry on working memory and problem solving and how this can change over time. Mindfulness can be a means to reduce this worry and free the student to perform to the best of their ability. When students are at home trying to study they need to be able to manage the stress or calm the panic to be able to study effectively. Similarly, getting a good night's sleep is problematic for some students but necessary for optimal performance at school.

Other events which may upset a student's wellbeing and consequently their ability to effectively focus and learn in class are individual, for example having a disagreement with a friend at recess or scoring poorly in a test in one subject then moving on to another. In these situations, being able to use mindfulness would be helpful for that individual, particularly for students in Years 11 and 12 when they undertake the Victorian Certificate of Education (VCE) or when the challenges just keep coming. Certainly, girls in the Year 12 focus group recounted using mindfulness so that they could think through the day ahead calmly and not be overwhelmed by stress, or to regroup following a School Assessed Coursework (SAC) task or exam when they felt completely drained so that they could look forward and carry on. As several students attested, these difficulties can be improved when the student applies a mindfulness technique which suits them.

Finally, the overarching role of schools is to prepare students for life beyond school. Training students so that they can use mindfulness independently means they will have a skill which they can use throughout their entire life. The use of mindfulness to maintain wellbeing and foster resilience will become more important as students go into an ever changing world. As well as society and the environment, the world of work is rapidly changing. It has been described, using a term from the wars in the Middle East as VUCA which stands for Volatile, Uncertain, Complex and Ambiguous (Business Chicks, 2018). In this world, rather than having one job or career for life, students currently at school will find a world where they can expect to have short-term or contract work, to change jobs and indeed careers many times and to have to keep upskilling in order to remain employable. The focus for jobs will be on value-adding, on customer service rather than routine roles and on providing custom solutions for unique problems (Australian Government, 2018). Having to be always seeking information, solving problems, applying for work and dealing with rejection will require individuals to be self-reliant and resilient. Students who have been taught mindfulness effectively at school, and so be able to use it independently, will be much better prepared for this world.

5.2.6 Response to the Research Question

Regarding the independent use of mindfulness from the perception of a sizeable proportion of students and some staff in this study the mindfulness program enables some students to practice mindfulness beyond the classroom in a time and manner of their choice.

5.3 Assertion 3

For mindfulness to be a worthwhile and sustainable part of the student experience at school, staff charged with teaching mindfulness must receive professional development in mindfulness with regular refresher training (KF 8, 9 & 10).

As was outlined in the participants section in Chapter 3, it was many years ago, in 2011, that staff at the school in the study were invited to undertake a course in mindfulness. A large group of staff participated in this training: members of the Principal class, the Year 12 Co-ordinator as well as classroom teachers and some support staff. One of the staff driving the venture into mindfulness was the then school psychologist. The school planned to implement mindfulness instruction for students across the whole school beginning the following year, making it an early adopter of mindfulness in a school setting in Australia. The large group of staff who had undertaken the training under Dr Craig Hassed, formed a group who met

regularly and supported each other as well as other untrained staff with feedback from their experiences, ideas for activities and resources.

This section will explain Assertion 3 by considering changes in mindfulness expertise over time, the importance of training, benefits for teachers of learning mindfulness and training school staff in mindfulness.

5.3.1 Changes in Mindfulness Expertise over Time

Over the ensuing years there have been many changes in staff and the roles of existing staff. Teachers or year level co-ordinators at the time of the study had not necessarily participated in the mindfulness training, and may not even have been employees at the time training occurred. The school psychologist who helped introduce mindfulness to the school moved elsewhere several years ago. All these changes in personnel have resulted in fewer staff who are trained and experienced with mindfulness.

Emphasis on student wellbeing at the school has grown since the staff mindfulness training occurred with a Deputy Principal for Wellbeing (only one of their areas of responsibility), a Year 12 Wellbeing Captain and in recent years, a Wellbeing Leader elected in each class in the secondary part of the school (Years 7 to 12; students aged 12 to 18). However, attention has also been focused on other areas under the wellbeing umbrella for example, anti-bullying and body image, with the expectation that the mindfulness program would just carry on. As time went on the pool of trained staff decreased and there has been no further mindfulness training provided (KF8). The only opportunity staff have to develop any experience is through the mindfulness activity (for example a short meditation, reading or reflection) lead by one of the senior staff which occurs at the weekly staff briefing, or when they attend the year level camp where trained personnel and sometimes visiting speakers run sessions on mindfulness for students.

5.3.2 Importance of Training

In other studies of mindfulness in school settings, the teachers were trained in mindfulness before the study commenced, or the mindfulness intervention was provided by a trained professional (Arthurson, 2015; Hutchinson & Huws, 2018). Hobby & Jenkins (2014) described the Mindfulness Month which occurred at an independent school in country Victoria. In that study, the resources used by teachers were provided to them and produced by mindfulness professionals and some professional development in mindfulness was available to staff via talks given at the school by the organiser.

Knowing that they are expected to regularly teach mindfulness to students the HG teachers, unless they are trained and experienced in mindfulness themselves, will often rely on one or a limited number of activities, for example colouring. Some, as has been indicated in the student data as well as anecdotally from staff, may not use mindfulness at all (KF9). Neither of these situations will provide students with deep and authentic experiences with mindfulness to support their wellbeing, nor develop their skills and knowledge enough to allow them to use mindfulness independently in the future. Unless staff are trained in mindfulness or provided with resources and detailed instructions to present the provided mindfulness activities, there would be no certainty that effective mindfulness instruction would actually occur at school.

The reduced attention on mindfulness or on the need to equip teachers with mindfulness training is another example of ‘the crowded curriculum’ in action (Lundy, 2015). The expectation that HG teachers will be able to find out for themselves what they need to know to teach mindfulness, as teachers who must teach outside their subject area experience, places more stress on teachers who are already time poor. Not all the teachers untrained in mindfulness will be prepared or able to teach themselves enough to teach it effectively to their classes, or even try (KF10). The HG teacher in the study who had received no training in mindfulness was enthusiastic and dedicated but felt under pressure from trying to find or develop suitable mindfulness activities without support. She consistently provided a variety of mindfulness activities to her class but did not feel she had enough expertise to teach mindfulness meditation so depriving her students of an important mindfulness technique. Even the HG teacher participants who received the initial training reported wanting follow-up training to update their knowledge and broaden their repertoire of activities as well as suggesting mindfulness training for new staff.

Without training in mindfulness, teachers will not know what effective practices are, let alone be able to teach mindfulness effectively and safely to their students. Part of training for teachers of mindfulness is education about which activities are suitable in a classroom setting, which should be used by health professionals with individuals and contraindications, for example those with severe anxiety, for using mindfulness meditation with certain students. In addition, Albrecht, Albrecht and Cohen (2012) in their review of mindfulness in education, reported the recommendation of mindfulness instructors that, *“Before teachers can feel comfortable and effectively teach mindfulness in the classroom they need to embody and practice mindfulness in their own lives.”* (p. 1).

This view is supported by the finding in the current study that students from the focus groups who reported using mindfulness independently tended to have been taught by teachers trained in mindfulness.

In their study into the effectiveness of the *.b Mindfulness in Schools* curriculum in schools in South Australia, (Johnson et al, 2017) described earlier, the mindfulness intervention was presented by visiting mindfulness instructors and the teachers were not required to participate. This study found no significant effect of the mindfulness intervention on a variety of measures. The authors suggested possible reasons for the lack of effect, one being that the students did not practice mindfulness enough for a benefit to occur and it was inferred that, being adolescents, they did not want to use mindfulness. These findings connected with lack of effect and possible lack of interest in mindfulness are not confirmed by the current study. Bailey, Chambers, Wootten and Hasted (2018) in their response to the Johnson et al (2017) study suggested other possible reasons such as the lack of time for practice and the lack of training, input or any mindfulness follow-up from the students' teachers. Except for the short mindfulness sessions run by experts who were strangers, the students were left to pursue mindfulness practice on their own, outside school time without help from their regular teachers.

The importance of students being taught mindfulness by their own teachers, who have been trained in mindfulness, has been illustrated in a recent meta-analysis of mindfulness interventions (Carsley et al, 2018). While post intervention improvements in mental health for students were found with teacher implemented programs but not when the programs were carried out by external facilitators, an increase in mindfulness was only achieved when the students were taught by mindfulness facilitators. It is suggested that teachers have greater existing and ongoing relationships with students to ensure continuing focus on mindfulness activities which improve wellbeing without having the experience or expertise to necessarily improve their present moment awareness facet of mindfulness. Thus, further mindfulness training for teachers would be even more beneficial.

The difficulty of ensuring that students are taught mindfulness effectively cannot just be addressed by employing trained facilitators for a short program as mindfulness needs to be sustained following the program, yet not all teachers will be prepared to undertake mindfulness training in their own time and develop their own practice. A compromise would be for a school wishing to teach mindfulness to have some training for staff and students using a suitable program, for example *Smiling Mind*, then follow this up in the long term with provided resources, like audio files of mindfulness meditations which teachers can use with

their students. This method would have the benefits of upskilling staff initially, then supporting them to continue with mindfulness by making it easier to provide appropriate activities and instruction, which initially at least they may not have the confidence to attempt on their own. Staff could be trained gradually, possibly paying for one or more staff to undertake specific training so they could then train other staff in house in the future. As new staff are employed they could receive professional development in mindfulness as part of their induction.

5.3.3 Benefits for Teachers of Learning Mindfulness

Over recent years international and Australian studies have started to focus on the benefits of training teachers in mindfulness. These studies initially focused on the effects on the wellbeing and practice of teachers working in schools (Gold et al, 2010 and Burrows, 2015). International studies investigated the benefits of mindfulness on beginning teachers. Bernay (2014) followed a group of beginning teachers in New Zealand in their first year of teaching. These teachers had undertaken studies in mindfulness as part of their Education degree and then used mindfulness personally throughout the year. They reported initially only using mindfulness intermittently in the early months but by the end of the year all had developed a regular mindfulness practice which they felt significantly improved their ability to cope with the stresses and challenges encountered through their work.

Increased coping was also a feature of an Australian study conducted with 28 teachers from eight different schools which investigated their experience over a six week period where they learned about mindfulness, regularly practiced mindfulness activities at home and at work and attempted to use mindfulness in relation to a dilemma at work (Burrows, 2015). The teachers reported becoming more self-aware of what they were feeling internally then gradually became able to just acknowledge the sensations and not automatically react. They also noticed changes in their habitual behaviours and by the end of the study their dilemmas had, in the majority of cases, resolved.

While courses in mindfulness are offered at many tertiary institutions in Australia, it is usually elective rather than a compulsory part of undergraduate courses. Monash University medical students learn mindfulness as part of their studies, which has been the subject of published research investigating the effects of learning mindfulness, (Hassed, De Lisle & Sullivan, 2009) as do students in other faculties at this institution. Instead of being something teachers may learn later, studies have shown real benefits for pre-service teachers (and other professions) of learning and practicing mindfulness. This suggests that training in mindfulness should become a requirement of initial teacher education programs in Australia. This would

benefit teachers as it would support the development of self-efficacy in beginning teachers enabling them to be resilient and flourish in their chosen career, reducing the worryingly high rate of teacher attrition. Weldon (2018) states the generally reported rate as 30-50% of early career Australian teachers leaving the profession within the first five years. A recent longitudinal study of 74 beginning teachers in Victoria, Australia, was carried out over five years to investigate changes in their self-efficacy (George, Richardson & Watt, 2018). Teacher self-efficacy is one of the key factors in whether they persist in their career. The results of the study indicated that in these beginning teachers the levels of self-efficacy were not static but could increase, particularly when exposed to high quality professional development programs in the early years.

Training in mindfulness, whether as part of university education courses or as professional development for in-service teachers, has other benefits for a school community as the teachers have the tools to support their wellbeing which will help reduce teacher burn out and loss of staff. They will also be able to model mindfulness behaviours authentically.

5.3.4 School Staff Training

Even if mindfulness training for education students occurred immediately, it would take many years for teachers trained in mindfulness to be the norm. This lag suggests that schools teaching mindfulness should ensure that staff undergo some training in mindfulness. This training could be via whole school professional development, especially when first introducing mindfulness, or training for individual teachers when they are new to the school, as part of their induction. Refresher training should occur regularly. This training and updating would be similar to what occurs for first aid training. In this way staff expertise in, and focus on, mindfulness can be sustained in a school setting. Apart from in tertiary courses, there are various ways to undertake training in mindfulness. For example, there are courses in mindfulness available, similar to that which the school in the study undertook initially, which usually take place weekly over a period of six to eight weeks. Other options are one or two day professional development specifically for teachers, participation by individuals in mindfulness classes (in person or online) or training to become a mindfulness practitioner. Some courses are of the ‘train-the-trainer’ type so that once the individual is trained they have the knowledge to train others.

At the school in this study both of the current health professionals had received training in mindfulness as part of their studies, and one had recently undertaken a course privately to become a mindfulness practitioner. Thus, the school now has a firm basis to rebuild the staff expertise in mindfulness and allow mindfulness to be taught effectively and sustainably.

5.3.5 Response to the Research Question

From the perspective of staff not all teachers had training in mindfulness but all would benefit from training or refresher training. While the student perspective was that some teachers appeared to know more than others about mindfulness and how to teach it for all students.

5.4 Assertion 4

A documented mindfulness curriculum including a bank of mindfulness resources, readily accessible by staff, is needed (KF 11, 12, 14, 16, 17 & 18).

One finding from this study, arising from all the data sets, was the inconsistency in the implementation of mindfulness at this secondary school. In addition, as described for Assertion 2, the experience of mindfulness students had varied in terms of length, timing, frequency and regularity of sessions as well as in the number and type of mindfulness activities, depending on their HG teacher (KF14). Now some studies reported giving teachers flexibility regarding when they would implement the mindfulness intervention (Joyce et al, 2010; Hobby & Jenkins, 2014). However, the difference between the mindfulness program in the current study and others was that at this school, mindfulness instruction was expected to be on-going, each week throughout each year of secondary school. Fitting in mindfulness several times each week in HG and providing consistently meaningful, engaging activities was challenging, especially as there was no documented mindfulness curriculum (KF17) which staff could reference.

This section will unpack Assertion 4 by discussing its benefits as; building consistency, ensuring students experience a variety of mindfulness activities and readily accessible resources.

5.4.1 Mindfulness Curriculum

5.4.1.1 Consistency

While vital, it is not enough that staff teaching mindfulness are trained in mindfulness themselves. For a school-based, universal mindfulness program to be effective (and sustainable) there should be a documented curriculum for each year level which is supported by a bank of activities and resources. It is in this way that consistent delivery of the desired mindfulness program can be facilitated ensuring access to mindfulness, and its benefits, for all students.

As the students' progress through secondary school, they develop in their maturity and their needs change. The mindfulness experiences provided should reflect this. The findings of this study suggest that at present while some mindfulness resources were stored in various locations at school, there was no documented mindfulness curriculum. These resources would best be curated by a staff member trained and experienced in mindfulness rather than being left to individual teachers, though they should be able to add resources. *Smiling Mind*, (2018) have just released their year level by year level mindfulness curriculum suitable for Australian students along with student workbooks and teacher resources. In addition, mindfulness resources from other suppliers are commercially available for schools wishing to develop their own mindfulness curriculum. An example of this is the book, *mindful learning*, (Hassed & Chambers, 2014) which contains many classroom appropriate mindfulness exercises and suggestions for developing a school mindfulness curriculum.

The curriculum should be planned so that the activities are scaffolded in complexity and also as the focus for mindfulness changes over the years of secondary school thereby avoiding mindfulness fatigue in students as each year they learn something new. For example, in Year 7 there should be a major focus on developing knowledge about mindfulness, understanding its language, purpose and benefits as well as its scientific basis. In this year, longer mindfulness sessions would be beneficial. Mindfulness meditation would be taught, gradually introducing different senses as foci for the meditation as well as mindful movement to appeal to kinaesthetic learners. In following years more emphasis may be placed on mindfulness techniques to improve focus or to recover from upsetting experiences while also having meditation for gradually longer periods. During the Victorian Certificate of Education (VCE) years (Year 11 and 12) emphasis would be placed on the students regularly practicing mindfulness to help them manage stress and reduce worry.

5.4.1.2 Variety of Mindfulness Activities

Data from students in this study indicated a preference for a variety of mindfulness activities as, in addition to reducing boredom, there was no single activity which met the needs of every student (KF18). This preference for a variety of mindfulness activities expressed by the students, and some teachers, in this study is similar to that found by Arthurson (2015) in her study of her Year 7 class learning mindfulness as part of their Personal Development course. This is in contrast to purely using meditation as described elsewhere (Campion & Rocco, 2009). The activities mentioned by students in a recent qualitative study of mindfulness (Hutchinson & Huws, 2018) were generally names of specific activities from the *Paws b* mindfulness program and so not immediately comparable to activities preferred by girls in the

current study. But there were some similarities with, for example one instance where a student said she used colouring and rubbing her tummy as a way to calm herself down, and another activity, called '*finger breathing*', which was probably a variant of a body scan meditation, which was also described by one of the Year 7/8 focus group girls in the current study as '*the whole body like the fingers and stuff*'. The key similarity to the current study was that students were exposed to several different mindfulness experiences.

If mindfulness is to be successfully applied independently by students as a tool to maintain their wellbeing, particularly in times of challenge, then they must experience a range of activities and techniques to find one (or more) which suits them. They would then be able to use their preferred mindfulness technique when needed, or a different one depending on the situation. Teachers who teach mindfulness rigidly through only one technique, for example by silent, seated meditation, may prevent students from finding a mindfulness practice which is right for them.

5.4.1.3 Mindfulness Resource Bank

One of the barriers to the regular implementation of mindfulness at this school was given as lack of time (KF11). This lack of time impacted both the type of activity and the frequency of mindfulness in the classroom presented by teachers. The brief nature of HG meant that even if time were reserved for mindfulness it could only ever be short thus restricting the type and depth of activity used (KF12). Even if mindfulness meditation were taught in HG time it was never possible to increase much beyond five minutes the length of time students were able to meditate. Any other activities had by necessity to be brief with little to no set up or materials required and this also reduced student engagement and skill acquisition. Making teaching mindfulness more difficult, especially for those without formal training, was the lack of a bank of easily accessible mindfulness resources for them to use (KF16). Having to source their own suitable mindfulness material was time consuming and difficult, especially for a novice. Some material was stored on the intranet pages of different year levels and some was posted on the student wellbeing areas but there was no central repository of materials, resources, or links to mindfulness related websites and references.

A bank of ready to use resources suitable for short sessions of five to ten minutes long would empower HG teachers, even those without formal mindfulness training, to implement more mindfulness activities in their HG. Some examples of suitable resources are audio files or apps which have different guided meditations of varying lengths (perhaps focus on the breath, body scan, walking meditation) or a set off activity cards or to prompt mindful conversations (Greenland& Harris, 2017; PESI Publishing & Media, 2017).

More consistency and quality in mindfulness instruction between teachers could be encouraged with provision of a readily accessible bank of high quality resources. Making it easier for teachers to implement mindfulness activities in the classroom will support staff using mindfulness (Bailey et al, 2018). With teachers having access to more and age appropriate mindfulness materials rather than having to find or develop resources themselves, more varied activities could be offered to students thus reducing repetition and improving student engagement. Also, all teachers, not just those most experienced with mindfulness, would be able to provide age appropriate activities which would keep students interested but also deepen their understanding and practice of mindfulness.

5.4.2 Response to the Research Question

From the perspective of staff, the mindfulness program is not adequately supported by a readily accessible bank of mindfulness resources, even though some materials are stored.

From the perspective of students, there was not sufficient variety in the mindfulness activities they experienced.

5.5 Summary

In this, chapter four assertions arising from the key findings were posed and discussed. They were:

Assertion 1

Mindfulness needs to find a meaningful place in the school's approach to learning and teaching – from Key Findings 1, 2, 3, 11, 12 & 13.

Assertion 2

When students receive appropriate, regular mindfulness experiences at school, as well as feeling the immediate benefits, they develop sufficient skills and access a variety of different techniques which allows them to continue to practice mindfulness independently-from Key Findings 4, 5, 6, 7, 14, 17 & 18.

Assertion 3

For mindfulness to be a worthwhile and sustainable part of the student experience at school, staff charged with teaching mindfulness must receive professional development in mindfulness with regular refresher training- from Key Findings 8, 9 & 10.

Assertion 4

A documented mindfulness curriculum including a bank of mindfulness resources, readily accessible by staff, is needed-from Key Findings 11, 12, 14, 16, 17 & 18.

These assertions suggest a way forward for schools, particularly secondary schools, wishing to make mindfulness a meaningful part of learning at their school. The next chapter will frame final recommendations which have been developed from the assertions. In addition, this final chapter will answer the research question, discuss limitations of the study, raise implications for the future and state the conclusion.

CHAPTER 6: RECOMMENDATIONS AND CONCLUSION

6.0 Introduction

In this chapter, limitations of the study will be described as well as the research question answered. Implications for future research, for schools wishing to implement a mindfulness program and for teacher education, which have arisen from this study, will be discussed. Finally, recommendations and conclusions from the research will be drawn.

6.1 Research Question Answered

Unlike previous studies, this research illuminates the experiences of secondary school students who have learned mindfulness over a period of one to six years, thus adding to the body of knowledge and filling a gap in this research field. It also gathered information from staff involved with mindfulness education at the school about their experiences and gathered feedback from the participants about their preferred mindfulness activities and how students used mindfulness personally, also areas previously underexplored.

The findings of this study indicate that for this school, from the perspectives of staff and students, the school mindfulness program was:

- Highly beneficial for many students
- Not universal (for all students)
- Inconsistent and not always regular both within and between classes
- Varied across the secondary school with respect to the type and breadth of mindfulness activities implemented, where formal mindfulness meditation (using different foci) was not always taught, and
- Needing support through: (i) staff training; (ii) resourcing; and (iii) time allocation.

6.2 Limitations of the Study

Two main limitations of this study were that it was a study at one school and that it was a girls' school. These and other limitations will be highlighted in the following sections.

6.2.1 One School

I had planned to have two participating schools in my study, and had tentative agreement from two schools. The panel members at my confirmation, however, were unanimous that, for a Master's research project, the scope was too broad so unless I converted to PhD candidature

I should study only one school. At the deadline for change of candidature only one school had formally agreed to participate therefore I decided to follow the advice to study one school only.

6.2.2 Gender

There is an imbalance in the literature around mindfulness with respect to gender. In most studies, even in non-gendered settings like workplaces and universities, female participants tend to be the larger proportion than males (e.g. the de Vibe et al., (2013) study had 76% female participants, Hassed et al., (2009) was 57.4% female while Metz et al., (2013) had 65.1% females in the treatment group and 66.7% females in the comparison group). It seems that females more than males may be more prepared to participate in research studies, possibly because they are interested in the area of research, are willing to express their opinions, or they recognise the importance of research and are more prepared to help the greater good. This in no way means that mindfulness is not beneficial for males. Indeed, the Richmond team from the Australian Football League credit the use of mindfulness by players as one of the reasons for their performance in 2017 resulting in their Premiership win (Cartmill, 2017; Colangelo, 2017). There is a need for further studies specifically into the efficacy of use of mindfulness by males, and studies to discover what practices, if any, are more beneficial for one gender or the other.

While interest in gender and mindfulness is valid, my interest in mindfulness stemmed from my work as a secondary Maths teacher in a girls' secondary school. I was successful in obtaining the 2014 WE McPherson Fellowship from the Invergowrie Foundation (which aims to support the education of girls) which facilitated my return to part-time study. I wanted to investigate ways to help my students cope and learn better, which meant studying mindfulness implemented in a similar setting in this case a secondary girls' school.

6.2.3 Other Limitations

A possible additional limitation concerns the size of the focus groups. Since it was their first year of secondary school and in all likelihood practicing mindfulness, a focus of this study was the experience of Year 7 students. A large proportion of the Year 7 cohort completed the survey. A much smaller number (5) volunteered to participate in the focus group interview. These students received no gift or reward (beyond a snack) for their participation but did give up some free time. Thus, the participants and the views they expressed may have come from more confident, opinionated students and therefore the data collected may contain some bias, both positive and negative, towards mindfulness practice.

Another limitation of the study was that students could only participate in this research with their parents' and carers' permission. Hence the information obtained from the participants may not be truly representative of the whole Year 7 cohort. The views expressed by the students in the Year 7/8 focus group, however, were spread, as was the number of classes represented (students came from four out of the five Year 7 classes). A similarly small number (5) of Year 12 students volunteered to participate in the Year 12 focus group but here parental permission was not required as they were all aged 18 years. Being slightly older may have meant these girls were more mature than some in their cohort. While a second focus group at each of the year levels investigated may have yielded more information, sufficient permissions were not obtained to allow this.

Similarly, not all staff were interviewed and none of the voluntary participants interviewed expressed the view that they opposed teaching mindfulness, though they did provide constructive criticism of the current mindfulness offering at the school. Difficulty organising time to meet some staff meant that perhaps not all perspectives were canvassed.

The focus of this study was the school-based experience of mindfulness for healthy secondary students not those dealing with trauma.

6.3 Implications for the Future

In the following section implications of the study for future research, school mindfulness programs, pre-service teacher education and teacher professional development will be discussed. Recommendations which arose from the Key Findings and resultant Assertions will be included in the relevant sections.

6.3.1 Implications for Future Research

This study has been an exploratory study into mindfulness at one school, focusing on secondary students (all female) and staff at that school thus much more research is required. Based on learnings through this project, some possible further avenues of research include:

- Capturing a wider range and variety of schools in a research study focused on mindfulness programs to establish what is the optimal way or ways to implement mindfulness training in secondary schools in an Australian setting more broadly;
- Investigating if there is any correlation between gender and mindfulness effects or the efficacy of different type of activities;
- Studies of the effects of mindfulness training for initial teacher education students both while at university and impact on their future teaching practice and self-efficacy;

- The experience of teachers who use mindfulness personally and their career trajectory and/or progression in education; and
- Studies of the wellbeing, resilience and performance of students who regularly practice mindfulness

6.3.2 Implications for School Mindfulness Programs

For secondary schools considering introducing mindfulness to their curriculum, in order for it to be successfully and sustainably implemented significant investment of time and resources is vital. Sufficient time must be allocated to ensure that instruction in mindfulness is not rushed, and the session length (at least sometimes) must be 20 minutes or longer to allow students to practice mindfulness meditation for longer periods of time and thus increase their skill (which in turn improves the benefits for the student). Resources include the money required to staff mindfulness sessions as part of the curriculum as well as development of teaching materials, staff training in mindfulness and the purchase of commercial mindfulness resources.

The recommendations to follow were developed from the findings of the study, using both staff and student experiences and their suggestions for improvement, as measures which should be considered by schools implementing a mindfulness program and educators more broadly. These recommendations seek to address the four assertions which arose from the key findings. The first assertion concerns mindfulness in the context of the whole school and the recommendations which follow suggest a framework and reporting structure for its implementation.

Assertion 1

Mindfulness needs to find a meaningful place in a school's approach to learning and teaching (KF 1, 2, 3, 11, 12 & 13).

Recommendations

1. To be effective and sustainable at a school-level, mindfulness instruction should occur regularly with sufficient time allowed for instruction and regular practice, for example once a week in home group time and also for at least 20 minutes within the timetabled wellbeing period each week.
2. The mindfulness program should be clearly the responsibility of each Year Level Co-ordinator, as part of their wellbeing portfolio (with them reporting to the Head of

Wellbeing), or the Subject Head (for example Personal Development) where applicable, and be reviewed annually.

The subjects of the next assertion are the requirements of an effective mindfulness program and its outcomes for students. The recommendation which follows broadly describes these necessary features.

Assertion 2

When students receive appropriate, regular mindfulness experiences at school, as well as feeling the immediate benefits, they develop sufficient skills and access a variety of different techniques which allows them to continue to practice mindfulness independently (KF 4, 5, 6, 7, 14, 17 & 18).

Recommendation

3. Mindfulness should be a regular part of the school curriculum, taught by teachers trained in mindfulness (and regularly updated), where classes provide instruction in mindfulness meditation as well as a variety of other, age-appropriate activities.

The assertion below concerns building and maintaining staff expertise in mindfulness. The following recommendations have been developed in order to ensure consistency and sustainability in mindfulness implementation at school.

Assertion 3

For mindfulness to be a worthwhile and sustainable part of the student experience at school, staff charged with teaching mindfulness must receive professional development in mindfulness with regular refresher training (KF 8, 9 & 10).

Recommendations

4. Each new staff member should undertake mindfulness training as part of their induction process, unless they have previously received training in mindfulness, for example as part of their initial teacher education program.
5. At the beginning of each school year, Home Group teachers should be briefed by their Year Level Co-ordinator regarding the plan for mindfulness instruction at that year

level, or Personal Development teachers by their Subject Head (whichever is applicable) and provided with access to a bank of mindfulness resources.

6. All staff undertake refresher training in mindfulness regularly every two years.
7. To maintain the sustainability of the school mindfulness program, ensure at least one staff member has qualified as a mindfulness practitioner, or undertaken other extensive training in mindfulness, and as part of their workload allocation can provide support regarding teaching mindfulness and resources.

The recommendations to follow around mindfulness curriculum and resources arose from Assertion 4. Their purpose is to encourage staff to implement mindfulness in their classes, to provide a range of mindfulness activities and by doing so improve student engagement and encourage students to develop their own mindfulness practice.

Assertion 4

A documented mindfulness curriculum including a bank of mindfulness resources, readily accessible by staff, is needed (KF 11, 12, 14, 16, 17 & 18).

Recommendations

8. There should be a readily accessible bank of mindfulness resources providing activities suitable for each secondary school year level.
9. Each school teaching mindfulness should develop and document its mindfulness curriculum, mapped by year level.

6.3.3 Implications for Pre-service Teacher Education

Teachers work in a profession with ever increasing levels of accountability, expectations, student wellbeing issues, workload and the associated stress. Retaining teachers in the profession long term is becoming a challenge. Hence investing in mindfulness is important because teachers who are resilient, able to manage stress, practice self-care and have high self-efficacy will be better teachers who flourish in their chosen profession of teaching.

Making mindfulness training a compulsory component of all pre-service teacher education courses would have two-fold benefits: (i) ensuring teachers in schools have training in mindfulness so implementing mindfulness programs in schools would be more effective; and (ii) teachers in training would be better supported to cope with the stresses and challenges of their tertiary studies and would be more resilient when they move into the world of teaching.

The final recommendation, arising from **Assertion 3**, (stated earlier) follows:

Recommendation

10. Training in mindfulness should become part of initial teacher education courses.

In summary:

- Mindfulness should be taught at secondary school.
- Mindfulness training should be a compulsory part of pre-service teacher education courses.
- In order to support the wellbeing and performance of all secondary students, and to possibly prevent the development of anxiety or depression in some, education in mindfulness at school should be universal.
- Further research is required to establish the optimum protocols for the implementation of mindfulness at the different stages of secondary school, and for boys and girls.
- Whenever mindfulness is taught in school, it should be resourced with:
 - a well referenced, documented curriculum containing materials for mindfulness meditation, for example scripts for guided meditations, and other activities appropriate for that year level
 - sufficient, designated, regular time
 - regular training and refresher training for staff.

6.4 Conclusion

This exploratory study of the use of mindfulness in a girls' secondary school in an Australian capital city has shown that, for some students, learning and using mindfulness has been highly beneficial for their wellbeing and enabled them to cope with the many demands and pressures in their lives. Mindfulness was well accepted by the majority of participating students and damaging to none.

From the students' perspective, there was no single preferred mindfulness technique, rather a desire for a mix of activities, including those involving movement, being outside and some form of meditation, so that each girl has the opportunity to discover a mindfulness technique which suits them and to maintain student interest.

Students from both the junior and senior focus groups were clear that mindfulness should continue to be taught at their school. This finding indicates the beneficial nature for students of learning mindfulness at school even though there were some criticisms of its implementation and suggestions of ways to improve the program.

The staff interviewed were consistent in their articulation of the benefits of mindfulness but also that training in mindfulness and easy access to resources was important to ensure staff confidence so that mindfulness is taught consistently. There was concern expressed that the time allowed for mindfulness (within the short Home Group time at the beginning of the day) was bare minimum.

From the staff and students interviewed while there did not appear to be widespread use of mindfulness incidentally in classes by teachers, some staff did use mindfulness on occasion to help the class settle or focus for a task. In addition, some of the students interviewed from both Year 7 and Year 12 routinely used mindfulness independently both during and after the school day. The Year 12 focus group students reflected that learning mindfulness had been helpful for them throughout their secondary schooling, especially in VCE, but also that it was a skill which they would be able to use throughout their lives.

The study of the use of mindfulness in this secondary school has shown that, with instruction and sufficient time to practice, girls at this school were able to develop appropriate skills to use mindfulness for their benefit. Additionally, for some students, learning and using mindfulness was hugely important for their wellbeing and ability to cope with their home and school lives. These girls routinely used mindfulness independently, often daily, and had developed their own mindfulness practice (what activities worked for them and when). Further research is warranted to determine the optimal way to teach mindfulness to secondary students, girls and boys.

Only teaching mindfulness to students who have come to the attention of school welfare staff (co-ordinators, counsellors or educational psychologists) while beneficial for those students, is reactive and is not inclusive for all. Mindfulness training for all the students, for example in a particular year level, gives each of those students access to techniques which they can draw on and is a proactive, health promotion measure. None of the students in the focus groups who were so vehement about the importance for them of learning mindfulness at school were identified as having clinical conditions.

One of the main variables in the teaching of mindfulness to students at this school was the differing levels of expertise in mindfulness and confidence of the teachers charged to teach it.

One way to address this, which is also beneficial for the nascent educator, is for pre-service teachers to undertake a course in mindfulness as a compulsory part of their studies. Thus, in future, teachers would have a common level of mindfulness training and vocabulary so schools would only have to provide information for their staff regarding the implementation of their program and the mindfulness curriculum, with resources and refresher activities, rather than having to train staff from scratch. In addition, the culture at schools would gradually become more mindfulness-centred as more and more teachers in them understood the benefits and practice of mindfulness. The impact of mindfulness on educators, and on their teaching practice is fertile ground for further research.

To explain why students should learn mindfulness at school, the final words must come from one of the Year 12 students who have been using mindfulness since Year 7:

It just sets you up for the future, it's one of the skills from school that actually applies out of school.

Year12 student

6.4.1 A Personal Note

This research has been both professionally and personally worthwhile. Since beginning my investigations into mindfulness for school students I have completed training in mindfulness, undertaken a Graduate Certificate in Educational Research and undertaken this Master of Education research project while continuing my paid employment as a maths teacher. Understanding the benefits of mindfulness has lead me to drive the introduction of the teaching of mindfulness at my secondary school, first as a unit of work in Year 7 Personal Development (and revisited in Year 8), then in 2019 mindfulness will be included as part of the Year 10 wellbeing curriculum. I have lead professional development sessions about mindfulness at staff meetings and curriculum days at my school (and presented initial findings at the 2017 Mathematical Association of Victoria (MAV) Conference). Gradually, more staff are trying to use mindfulness in their classes, particularly as the students coming through have an understanding of the language and benefits of mindfulness. The school administration have supported my studies and the gradual introduction of mindfulness. Meanwhile my own mindfulness practice is developing-completing this research and thesis would have been impossible without mindfulness in my life.

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APPENDICES

Appendix 1. Summary of Key Findings

The findings outlined in the Findings chapter have been distilled into the a few key findings for each theme which are numbered and listed below.

Purpose

1. Both teachers and students understood the purpose of learning mindfulness as being to help students maintain or improve their wellbeing and performance at school and in the future.
2. From staff and students who have received instruction in mindfulness the wellbeing benefits reported were: self-calming, to increase focus, to cope with stress or anxiety, to regain equilibrium after assessments or upsetting or stressful situations and to aid with sleep.
3. The aim of teaching mindfulness to support the wellbeing and outcomes of all students has not been met since not all students have received mindfulness education.

Independent Use by Students

4. When students have sufficient experience of mindfulness at school they are able to use it independently (develop their own mindfulness practice).
5. Several students rely on using mindfulness to cope with their everyday lives.
6. Not all students who have their own mindfulness practice use mindfulness meditation.
7. Those (focus group participants) who currently use mindfulness independently expect to continue to do so in the future.

Training

8. Currently not all staff with the responsibility to teach mindfulness have received any mindfulness training.
9. Staff without training tend to use simpler activities like mindfulness colouring rather than mindfulness meditation, or may not use mindfulness at all.
10. Training in mindfulness is necessary in order for staff to teach it effectively.

Time and Timing

11. Due to time pressures, in many classes mindfulness instruction is sub-optimal both in terms of frequency and duration.

12. The expected, short, HG time-slot for mindfulness restricts the type of activities used, reduces skill development and prevents practice of mindfulness meditation for longer periods of time.
13. Some HG teachers organise other, longer periods of time for mindfulness and there is occasional incidental use of mindfulness at other times (like just before a test).

Activities and Resources

14. Depending on the teacher, the mindfulness activities offered vary greatly in type, number of different activities used, implementation and student input.
15. Except while on camp, mindfulness takes place indoors.
16. There is no central bank of mindfulness resources for staff to access.
17. There is no curriculum, mapped by year level, for mindfulness.
18. No single mindfulness activity meets the needs and interests of all students so provision of various activities is necessary.

Appendix 2. Assertions and Resulting Recommendations

Assertion 1

Mindfulness needs to find a meaningful place in a school's approach to learning and teaching (KF 1, 2, 3, 11, 12 & 13).

Recommendations

1. To be effective and sustainable at a school, mindfulness instruction should occur regularly with sufficient time allowed for instruction and regular practice, for example once a week in home group time and also for at least 20 minutes within the timetabled wellbeing period each week.
2. The mindfulness program should be clearly the responsibility of each Year Level Coordinator, as part of their wellbeing portfolio (with them reporting to the Head of Wellbeing), or the Subject Head (for example Personal Development) where applicable, and be reviewed annually.

Assertion 2

When students receive appropriate, regular mindfulness experiences at school, as well as feeling the immediate benefits, they develop sufficient skills and access a variety of different techniques which allows them to continue to practice mindfulness independently (KF 4, 5, 6, 7, 14, 17 & 18).

Recommendations

3. Mindfulness should be a regular part of the school curriculum, taught by teachers trained in mindfulness (and regularly updated), where classes provide instruction in mindfulness meditation as well as a variety of other, age-appropriate activities.

Assertion 3

For mindfulness to be a worthwhile and sustainable part of the student experience at school, staff charged with teaching mindfulness must receive professional development in mindfulness with regular refresher training (KF 8, 9 & 10).

Recommendations

4. Each new staff member should undertake mindfulness training as part of their induction process, unless they have previously received training in mindfulness, for example as part of their education studies.
5. At the beginning of each school year Home Group teachers should be briefed by their Year Level Co-ordinator regarding the plan for mindfulness instruction at that year level, or Personal Development teachers by their Subject Head (whichever is applicable) and provided with access to a bank of mindfulness resources.
6. All staff undertake refresher training in mindfulness regularly every two years.
7. To maintain the sustainability of the school mindfulness program, ensure at least one staff member has qualified as a mindfulness practitioner, or undertaken other extensive training in mindfulness, and can provide support regarding teaching mindfulness and resources.
10. Training in mindfulness should become part of tertiary teacher education courses.

Assertion 4

A documented mindfulness curriculum including a bank of mindfulness resources, readily accessible by staff, is needed (KF 11, 12, 14, 16, 17 & 18).

Recommendations

8. Each school teaching mindfulness should develop and document its mindfulness curriculum, mapped by year level.
9. There should be a readily accessible bank of mindfulness resources providing activities suitable for each secondary school year level.

Appendix 3

Focus Group Questions: For students in Year 7 in 2016 & Year 12 in 2017

These questions are to discover your experience of learning mindfulness at school last year. Your responses will be confidential and no student will be identified in the research report so your teachers won't know who said what.

So that everybody gets a chance to answer fully, and so each voice is clearly heard on the recording, I only want one person to speak at a time. This means I will ask the question then go around the group so each of you can answer in turn.

The first time please say your name and the name of your Year 7 (last year's) Home Group teacher.

The first few questions will be to find out about your class and when you did mindfulness.

Then I'll ask questions to find out more detail about the activities you did, how you felt doing them and whether you found mindfulness useful, also if you used mindfulness at any other time.

Finally, I want to discover if there were any things which made learning or using mindfulness difficult for you and any suggestions you have for improving the mindfulness program.

- 1 What is your name and the name of your Y7 HG teacher?
- 2 Did you regularly do mindfulness activities at school? If so when and how often?
- 3 In your own words explain what mindfulness is.
- 4 Please tell me about some of the mindfulness activities you did last year and whether you liked them and why/why not.
- 5 Did you find the m'ness activities helpful OR How did you feel when you were doing m'ness? What about afterwards? Did it help you?
- 6 What benefits/good things were there to doing m'ness? (how has it helped you?)

- 7 Did you ever do meditation? If so how often, who lead it and what happened?
- 8 Do you ever use m'ness e.g. a Pause, at other times than in Personal Development or HG times? If so please describe when and what you used.
- 9 When you were expected to do mindfulness activities what (if any) things made this difficult for you or others in the class?
- 10 Describe any improvements to the m'ness program.

Prompts

MINDFULNESS MEANS

So, what do you think mindfulness is?
did.

Anyone else?

MINDFULNESS ACTIVITIES

Tell me about some mindfulness activities you

Which ones did you like?

Why did you like those ones?

EFFECTS

How did they make you feel? When you were doing them

Afterwards-any lasting effects? E.g. focus, calmer,

What effects or changes did you notice?

Has learning about mindfulness been helpful for you?

Explain Why or why not

USING MINDFULNESS

Do you ever use mindfulness at any other time? Either at school or outside school

Tell me about these times when you do use mindfulness. What situation prompted it and what happened.

PROGRAM

When did you do mindfulness? HG or Personal Development time or when?

Did you sit in a different place or change the classroom for these sessions? Sit on the floor, lights off, music etc.

How long did you spend on mindfulness at a time?

Did you learn to do mindfulness meditation? If so what did you have to do?

Did your teacher lead it or other e.g. smiling mind?

Was your teacher confident about teaching mindfulness?

How was your class wellbeing captain involved in mindfulness activities?

Any of you one?

Why do you think you are learning mindfulness at school?

DIFFICULTIES & SUGGESTED IMPROVEMENTS

When you were expected to do mindfulness activities what, if any, things made this difficult for you or others in the class?

What do you think could be done to improve learning about mindfulness at school?

Appendix 4

Student Survey: My experience of mindfulness at secondary school

Thank you for completing this survey which seeks to find out about your experience of the school mindfulness program which you undertook this year. Think back to term 1 when you spent several weeks learning about mindfulness.

For each of the statements below circle the number which best fits your opinion where:

1 = strongly agree, 2 = agree, 3 = disagree and 4 = strongly disagree

Statement	Response
I knew something about mindfulness before I did the program in Year 7.	1 2 3 4
I enjoyed the mindfulness program.	1 2 3 4
I think the mindfulness program was really useful for me.	1 2 3 4
I think the mindfulness program was a waste of time.	1 2 3 4
I liked the mindfulness program because we got out of regular classes.	1 2 3 4
The activities we did as part of the mindfulness program were fun.	1 2 3 4
The teachers taking the mindfulness program seemed enthusiastic about mindfulness.	1 2 3 4
The teachers were well prepared for the mindfulness classes.	1 2 3 4
Learning mindfulness allows me to calm myself down.	1 2 3 4
When I use mindfulness, I don't worry as much.	1 2 3 4
I can use mindfulness to help me focus on the lesson or on doing homework.	1 2 3 4
I use mindfulness to help me go to sleep.	1 2 3 4
I use mindfulness so that I focus less on 'mental chatter' and more on what I want to think about.	1 2 3 4
Learning mindfulness has helped me manage worry about schoolwork.	1 2 3 4
I use mindfulness to help me when something upsetting happens.	1 2 3 4

It was hard to learn to meditate.	1	2	3	4
Mindfulness meditation gets easier with practice.	1	2	3	4
I only use mindfulness when I am told to.	1	2	3	4
I have used a 'comma' or 'full stop' outside class time.	1	2	3	4
I talked about what I was learning about mindfulness with friends or family.	1	2	3	4
Besides the mindfulness program, there are other times at school when we use mindfulness.	1	2	3	4
You need to have a special place to meditate.	1	2	3	4
You don't have to be meditating to be mindful.	1	2	3	4

Remembering your experiences learning and using mindfulness this year please answer the following questions giving as much detail as you can.

1. Describe the classroom setting when you learned mindfulness.

2. Circle one or more of the words below which describe your experience of the mindfulness program or add your own:

Easy Soothing Difficult Fun Boring Interesting

Useful _____

3. Circle one or more of the words below, or write your own, to complete the sentence-

The mindfulness program has enabled me to:

Manage my thoughts Manage my emotions Manage stress/anxiety Remain the same as before

Focus my attention Improve my work Learn better Sleep better

-
4. Describe an activity or lesson during the mindfulness program which you found really enjoyable or interesting.
 5. Why did you think so?
 6. Which aspect of mindfulness meditation, for example focusing on the breath, did you find most useful?
 7. Have you used any of the mindfulness techniques you learned since you finished the program (e.g. helping to focus or to go to sleep)?
 8. Describe when you have used a mindfulness technique.
 9. Describe any things, for example the timing of the classes, other students or the setting, which made it difficult to get the most out of the mindfulness program.
 10. Suggest ways in which the mindfulness program could be improved

Appendix 5

Staff Interview Questions; Mindfulness in Secondary School

1. What is your role at _____(insert the relevant school name)?
2. How long have you been at the school and for how long have you been in this role?
3. What is your understanding of why mindfulness is taught?
4. Was there a particular need or purpose?
5. What benefits do you think the program has?
6. How do you know (what evidence supports this view)
7. What is your involvement in the mindfulness program?
8. How was the program developed- in house or using a commercial program?
9. Please give me some detail about the program and how it is implemented.

Who, what, when, how, how often
My primary focus is at year 7 but how is mindfulness used in other levels?
How is it staffed?
Who co-ordinates it?
10. What support is provided for the teachers of mindfulness?
11. When is mindfulness used at school, apart from the program?
12. What do you see as difficulties with the program? implementation, staffing, timing etc
13. How do you think it could be improved?
14. Could you give me some background about the school and the clientele.