Difficult and challenging experiences encountered by pupils during participation in a 10 week classroom based mindfulness informed program.

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To stimulate life – leaving it free, however, to unfold itself.

That is the first duty of the educator.

Montessori

Abstract

Mindfulness informed interventions are one of a range of programs being used in schools to promote well-being and potentially alleviate the mental health burden of pupils. In adults, there is increasing interest in the occurrence of difficult and challenging experiences in both mindfulness-based and other psychotherapeutic interventions, but evidence is lacking concerning whether or not similar experiences occur for school pupils. This study explored difficult and challenging pupil experiences during participation in the 10 week .b mindfulness course, developed by the Mindfulness in Schools Project. This study utilised ethnographic and case study methodology to explore pupil experience of both course content and structure, as well as deeper phenomenological experience. Positive experiences were also captured and will be published in a separate paper. Four classes in three schools were studied, yielding a total sample of n = 65 pupils, aged between 11 and 15 years, who were observed during the course over a 10 week period. In each class, the researcher recorded their observations of the interactions between the teacher and the pupils and how they engaged with the curriculum content. Lessons were also video recorded for later independent competency rating. Pupils completed journal entries before and after each lesson, detailing their experiences. Finally focus group interviews were conducted half way through the course and following the final session, by a team of interviewers. Pupils in two of the classes were also interviewed individually. In total n = 46 pupils, and all teachers, consented to be interviewed about their experiences of the .b programme. Classroom observation notes, journal entries and interview transcripts were analysed using thematic analysis. Emerging themes were refined and explored with reference to difficult and challenging experiences. The superordinate themes identified were 'Difficult and challenging experiences', 'Pupil contexts', 'Teacher contexts', 'The curriculum' and 'School contexts'. Some pupils across all three schools experienced increased awareness of, triggering, or fixation of negative or 'bad' thoughts, including difficult memories. In some cases, these had the tendency to linger for a period of time after the practice had finished. Some pupils also described an increased awareness or experience of difficult emotions, such as sadness. In school

1, 5 out of the 15 pupils interviewed (33%) described an increased experience of troubling thoughts or emotions (4 female, 1 male), while in school 2, 1 out of the 5 interviewed (20%) described increased negative thoughts (1 female), and another two (40%) described increased experience of or difficulty in dealing with emotions (1 male, 1 female). In school 3, 3 out of 26 (11.5%) described an increase experience of negative thoughts (3 male). Other difficult pupil experiences included feeling judged, finding mixed effectiveness, finding practices weird or uncomfortable, and having difficulty with certain practices. Pupil contexts included interpretation and misinterpretation of content, and teacher contexts included how the curriculum was framed, and how teachers managed difficulties in their pupils. The content of the curriculum and how this may have contributed to pupil experience, as well as other school contexts, are also discussed. Implications for school based mindfulness informed curriculum are discussed and explored, with particular regard to conceptualising, managing and mitigating difficulties. Comparisons and implications for other school based psychoeducational programs and curricula are also discussed.

The author declares no conflict of interest with this study

1. Introduction

1.1 Summary of thesis

School based interventions (SBI's) are complex mental health interventions used with the aim of promoting pupil wellbeing and reducing mental ill-health, both in the short and long term. However, there is limited conceptual understanding of difficult and challenging experiences that may be encountered by pupils during participation in SBI's. Importantly, conceptual understandings and subsequent monitoring of difficult and challenging experiences in comparable psychological interventions in adult populations are lacking. One type of SBI, called '.b' [pronounced 'dot-be'], is taught to pupils aged between 11-18 over a 10 week period with the aim of improving wellbeing and reducing mild symptoms of mental ill health such as general stress and worry. .b is based on mindfulness meditation, a type of psychological intervention commonly indicated in a broad range of contexts across different adult populations groups. In adults, mindfulness based interventions (MBI's), and more broadly other types of meditation, can be associated with difficult and challenging experiences. This study sought to capture pupils' experience of the .b course, particularly their phenomenological and internal experience, and from this describe difficult and challenging experiences and the contexts in which they occur. In doing so, the study will address the difficulties and challenges that may or may not occur for pupils learning the .b curricula in school, and subsequently broaden the understanding of difficulties and challenges for the .b curriculum, as well as the mindfulness and meditation literature for both children and adults. The study will also contribute to understanding difficult and challenging experiences in the broader context of SBI's, and subsequently hope to contribute to a better understanding of the efficacy and safety of these types of complex mental health interventions.

1.2 Mental health – a global public health challenge

A recent *Lancet* Commission on global mental health and sustainable development recently highlighted four key pillars in addressing the UN's Sustainable Development Goals regarding mental

health [1]. These are firstly that mental health is a global public good; secondly that mental health problems exist along a continuum from mild, time-limited distress to chronic and progressive conditions; thirdly that each person's mental health is a unique product of social and environmental influences – particularly in childhood – that interact with various genetical and biological developmental factors; and fourthly that mental health is a fundamental human right whereby the welfare of people at risk of poor mental health is protected, and an environment that promotes mental health for all is enabled. Addressing the mental health of young people (people between the age of 12 and 24) has increasingly been considered particularly important in accomplishing this [2]. This is firstly because young people are of an age where most mental disorders begin – indeed, of all adults who will ever develop a psychiatric disorder, 50% experience significant psychopathology by 15 years, and 75% by age 24 [2, 3]. The age of onset of illness is also critical in defining its' clinical course – for example, adults with severe depression that first emerged at an earlier age have been shown to have a more severe clinical course [4]. Mental disorders in young people aged 15-24 contributed 60-70% of Disability Adjusted Life Years (DALY) [5], and there is a strong correlation between poor mental health and other developmental issues in this age group, such as substance abuse, violence and poor sexual health, academic performance, social difficulties, physical ill health and suicide [2, 6-9]. Suicide is also the leading cause of death in young people [2]. Contrastingly, WHO defines mental health as 'A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community' [10]. Mental health promotion has been defined as 'The creation of individual, social and environmental conditions that enable optimal psychological and psychophysiological development' [11]. The way in which this definition of mental health and mental health promotion can be compared and linked to pre-existing educational pedagogy has been made by a number of authors [12-14]. Correspondingly, there has been strong recent interest in the use of schools as a primary source of intervention to both promote wellbeing, and potentially alleviate long term mental ill-health burdens [2].

1.2 The role of schools

The *Lancet* Comission highlighted several areas in helping to address these global public health challenges, key to which is the conceptual reframing of mental health to encompass sustainable development[1]. This includes continuing a gradual shift in understanding of mental health from being a purely medical problem towards a bio-psycho-social understanding; continuing another progressive shift from institutional to community care for mental health problems; and growing an idea that mental health is not just the domain of a single group of experts (i.e. psychiatrists) but instead can be delivered by a range of professionals (such as school teachers) [1]. Addressing mental health issues therefore increasingly requires an agenda which includes health promotion and prevention – the latter of which requires an understanding of risk factors, and a clear staging approach (see figure 1 below). Schools have subsequently been highlighted as important and relevant social institutions, central in the lives of children and families, that can facilitate important change in the development of the child and young person [14]. Education is strongly linked to heath and health determinants such as health behaviours, the level of engagement in risky contexts, and preventative service use [13]. Education helps promote and sustain healthy lifestyles, encourages positive choices, supports and nurtures development, and fosters relationships and personal, family and community well-being [13]. With regards to mental health promotion, schools have been considered to provide broad reach, and to be a cost-effective mechanism for delivery of health promotion efforts [14, 15]. Noticeably, schools are often 'defacto' deliverers of mental health support for children, although they often receive only limited or indeed no support to assist with this [16]. As a result, many schools are already involved in providing intervention and/or educational services, which can be either targetted at children with pre existing mental health issues or those considered to be at risk. For example, Cognitive Behavioural Therapy (CBT), psychoeducation, life skills and social programs can all be delivered through schools, as can government initiatives [12, 15, 17]. These services can be delivered either by teachers, other support staff in the school such as

teaching assistants, psychologists, councellors and nurses, or by external agencies such as charities and government child and adolescent services.

These targeted programs are not without their problems however. Firstly, there is a recognition of a need to better integrate services for children and break down barriers ('siloing') between services in schools [12]. Additionally, targeted services can predispose to stigma, have substantial costs, miss those currently not deemed high risk, and rely too heavily on an 'expert' external power model whereby advanced professionals consult on a intermittent basis [12]. There is also a concern for the medicalisation of the educational field and the associated stigma, confusion over the multitude and heterogeneity of interventions and cumbersome and costly infrastructure support [12]. Subsequently, there is a growing recognition that mental health promotion should be central to already-existing educational pedagogy [12]. Universal approaches to mental health promotion, that can assist in targetting both at risk children as well as promoting general flourishing and resilience (which is defined as a change process involving positive adaptation in the face of adversity), have been suggested as a viable option in conjunction with a targetted model. These universal programs are aimed at the general school population in order to increase wellbeing and promote resilience – akin to stage 0 or 1a in figure 1 [18, 19]. They are not delivered to a specific target population and screening of participants does not occur prior to their delivery [20]. CBT-based and positive psychology programs are two examples of universal programs in use [21]. Meditation informed curricula are a third category, which are thought to have the added advantage of being a 'foundational' component of education, due to the inherent nature of understanding the mechanations of one's own mind – the tool by which learning occurs [22].

Figure 1 – adapted from Patel et al. (2018) [1]

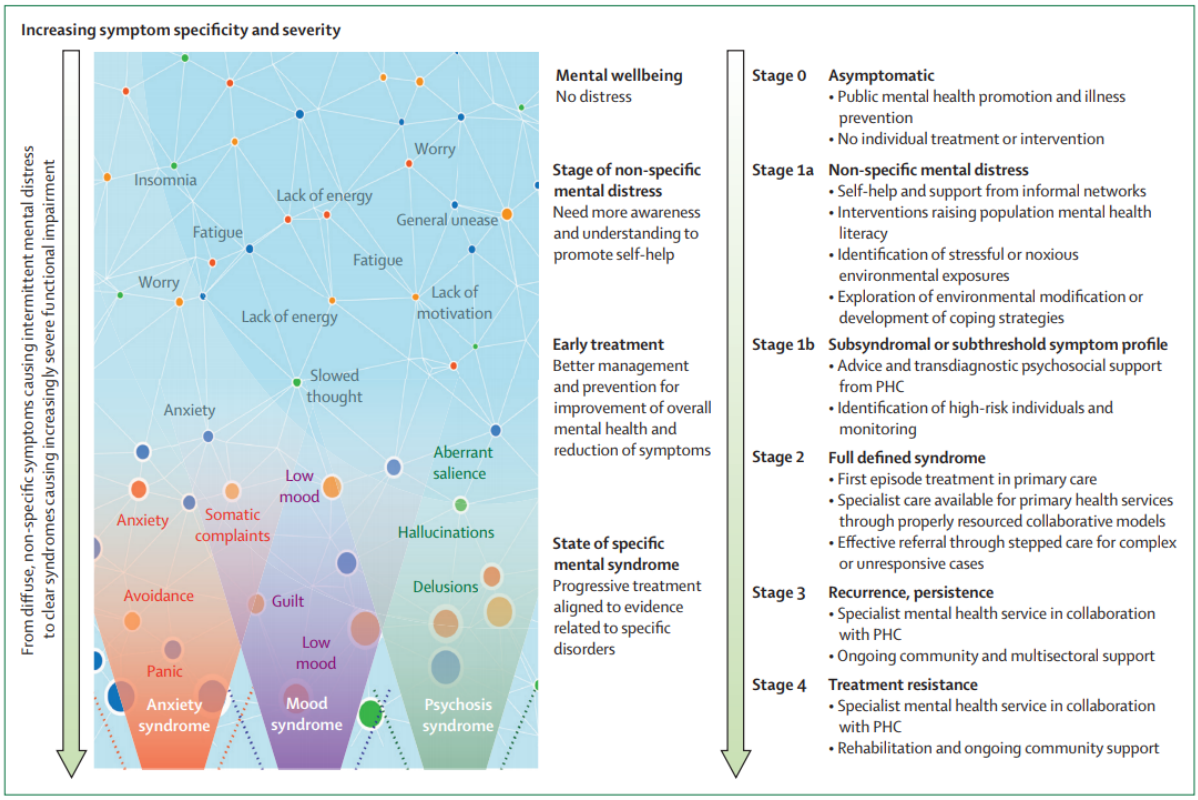

Figure 5: **A staging approach to the classification and treatment of mental disorders**
PHC=primary health care. Adapted from McGorry et al[73] and McGorry and van Os.[74]

1.2.3 Meditation informed school curricula

Meditation is a practice that has existed for many hundreds of years in both Western and Eastern traditions that has recently entered mainstream Western research [23]. Broadly speaking, meditation is a set of techniques involving various types of introspection, self-reflection and contemplation, attentional techniques and mantras, and movement exercises such as yoga and tai chi [23]. Various types of meditation curricula are being either researched or implemented in schools across a number of countries [24-26]. There are a number of systematic reviews investigating these

curricula – documenting the type of meditation or contemplative practice, its' length, intensity, location, the type of facilitator, the outcome, the setting (normal classroom or existing health, religious or fitness program), the time of the day, and whether taught to a clinical or non-clinical group [22, 26-28]. Often, a 'core' type of meditation practice will be mixed in with varying types of psychoeducation content or other practices such as massage, imaginative play or games [22]. A core type of practice has been defined as 'structured activities for participants to be able to focus their attention and control their physical and mental activity', which is included in commonly researched meditation practices such as mindfulness, loving kindness meditation, TM, Vipassana, Yoga, Zen and centring prayer [26, 28, 29] . A recent systematic review by Dunning et al. in 2018 analysed 33 independent studies - which included 3666 children and adolescents – in a random effects meta-analyses and found significant positive effects of mindfulness interventions, relative to controls, for the outcome categories of mindfulness, executive functioning, attention, depression, anxiety/stress and negative behaviours, with small effect sizes (Cohen's d), ranging from .16 to .30 [30]. However, when considering only those RCTs with active control groups, significant benefits of a mindfulness intervention were restricted to the outcomes of mindfulness (d= .42), depression (d= .47) and anxiety/stress (d= .18) only. Other meta-analyses have revealed statistically significant changes with small to moderate effect sizes relative to control for mental health & wellbeing, cognitive performance, stress, and resilience, anxiety and a range of other psychological domains [22, 27, 31, 32]. However, these studies often look at interventions delivered to both clinical and school based populations. Meditation informed curricula have also been noted to have some limitations; concern has been raised for the diversity of exercises present within them, the amount (intensity) of practice, the implementation process, and the lack of understanding of pupil's motivation [22]. Authors have also raised concern over the potential for publication bias, issues with the intention and framing of purpose of practice, the quality of studies (including small sample size, multiple pilot studies, limited methodology and lack of controls), lack of powering of studies, difficulties in measuring effects of mindfulness in this field, and lack of long term follow-up [22, 28].

1.3 Mindfulness and the .b curriculum

1.3.1 Mindfulness

All of the systematic reviews above involved trials that had incorporated Mindfulness Based Interventions (MBI's). MBI's, as used in secular settings, are a recently standardised style of meditation based on the Vipissana tradition of Buddhist meditation [23]. The initial adaptation for secular healthcare settings was an eight week course developed in 1979 by Jon Kabat Zinn. This program involved breathing practices, attentional techniques, and phenomenological practices such as awareness of sounds, thoughts and of 'self' [33]. Mindfulness meditation has been subsequently broadly defined as an attentional technique grounded in awareness of the moment, with a conscious decision to relate to one's internal events or experiences in an open, non-judgmental and accepting manner [33-35]. After initial success in helping chronic pain patients, the original model was expanded and modified to assist in treatment of other illnesses such as chronic depression, anxiety, and personality disorders, and was shown to have a number of effects in the biological field as well, such as reduced blood pressure and neuroplastic effects [36, 37]. Mindfulness Based Cognitive Therapy (MBCT) is an adaptation of MBSR by Teasedale, Segal and Williams, which includes an expanded psychoeducation component and greater emphasis on cognitions which are more likely to be associated with depression, and is currently recommended by the National Institute for Health and Clinical Excellent (NICE) in the UK as treatment for individuals with relapsing and recurrent depression who have had three or more previous episodes[38].

1.3.2 The .b curriculum

The .b mindfulness program is a classroom based mindfulness curriculum developed by the Mindfulness in Schools Project (MiSP) in 2009 for UK school pupils aged 11-18 [39]. MiSP is currently one of the leading providers of mindfulness informed classroom curricula in the UK [39]. The .b program was developed iteratively over four years, with input from teachers and pupils, and is based

on the MBCT model with further refinements, added psychoeducation components, and language tailored to young people in schools (see appendix 3 for a curriculum rubric) [40]. .b was created by classroom teachers who were also mindfulness practitioners, with the belief that young people in school could benefit from learning mindfulness skills. MiSP describes .b as a program that has the potential to 'help young people experience greater wellbeing, to fulfil their potential and pursue their own goals, to improve their concentration and focus, to work with difficult mental states such as depressive, ruminative and anxious thoughts, and low moods, and to cope with the everyday stresses and strains of adolescent life' [41]. The .b course consists of 10 lessons, each one ranging from between 40 minutes to one hour, and is taught weekly during regular school hours by a regular school teacher who has been trained in the .b curriculum. Pupils are also encouraged to complete home practices supported by online video teachings. Lessons typically follow a format of introducing a new topic or idea (such as the skill of being able to direct one's attention like a spotlight) which is then further explained through either teacher led discussion (based on scripted notes in the teacher's handbook) or an animation, which incorporates the use of quotes, poems, anecdotes or movie clips. Pupils are then instructed to perform either a practice or fill in a worksheet. Experiences and ideas are then shared with the class and the teacher.

1.4 Difficulties and harms in psychological interventions

1.4.1 Broader conceptual issues in psychological literature

Whilst there is increasing evidence that MBI's produce benefits for adults and young people, as highlighted by the above reviews, more recently attention has been directed, particularly in the literature on adult mindfulness and MBI's, to the corresponding possibility that these programmes also have the potential to produce disbenefits or harms – or, at the very least, include difficult and challenging experiences. This is alongside an acknowledgment that there is a lack of understanding regarding the categorisation of harms in psychological interventions more broadly [42]. Harmful effects of psychotherapy have been listed as worsening of symptoms, the appearance of new

symptoms, heightened concern regarding existing symptoms, and excessive dependancy on the therapist [43]. In one study, 5.2% of almost 15 000 respondants in a cross sectional survey of people receiving psychological treatment reported experiencing 'lasting bad effects' [44]. Commonly about 10% of clients are deemed to become 'worse' following therapy [45]. However, psychological models of side effects and harm have been acknowledged to be a lacking and traditionally neglected area of psychotherapy and psychological interventions in general [46]. The focus of research in psychology and psychotherapy is commonly on the benefits of the interventions in question rather than on harm they may cause, partly because of the assumption that talking is harmless [47]. There is a growing interest however regarding the potential for psychological interventions to indeed cause harm [43]. For example, there is a recognition that increased adverse events can occur in trials that use psychological interventions, partly because there are no phase I or II screening trials as with novel medications [43]. Psychologists are often left to monitor the safety of interventions themselves, even though it has been argued that the field has has been 'reluctant to police itself' [43, 48]. Furthermore, adverse effects in psychological trials are often not reported or systemically monitored [42, 49].

A recent definition of harm in psychological interventions has been suggested to be when an individual suffers a sustained deterioration in domains such as functioning, behaviour, symptoms or relationships caused directly by the psychological intervention [42]. The authors highlight that the word 'sustained' is used because they describe that some degree of psychological discomfort is 'often a necessary part of the process of psychological change' [42, 50]. They also highlight that it is important that a causal connection be established between the intervention and any subsequent deterioration, and that it is not, for example, a part of the natural disease process. A similar definition by different authors includes the idea of the therapy being 'damaging, troublesome or injurious', by making the original problem worse when it would otherwise have either stayed the same or improved had the therapy not been administered or a different therapy administered [51]. These authors are quick to highlight the difference between harmful and unhelpful; the latter being

defined as ‘offering no assistance’. The authors of the above two definitions recognise a need to acknowledge both patient and therapist factors when determining whether an intervention has been harmful – for instance, the morbidity of the patient and course of the illness prior to intervention, the possiblity of both positive and negative effects of an intervention within individuals, and the subjectivity of the patients interpretation of their experience of therapy.

Linden has similarly defined side effects of therapy as being separate from treatment non-response, deterioration of illness or results of malpractice [52]. Linden defines all negative events occuring in parallel or in the wake of treatment as unwanted effects. Unwanted events can then be sub-classified, for example, into treatment emergent reactions, which are any unwanted event that is caused by the treatment, and adverse treatment reactions, which are any unwanted events that are caused specifically by correct treatment (in contrast to malpractice reactions, which are caused by incorrect or improperly applied treatment). Linden notes how pharmacotherapy has been considered by those in the psychotherapies to have a substantially more well developed tradition and scientific nomenclature in defining side effects, adverse efects and harm, which may be useful to inform a corresponding psychotherapeutic nomenclature in a similar way to the above definitions [52]. Various criteria have been postulated for classifying and conceptualising the effects of psychotherapies – including, for example, the specific therapeutic technique, client variables such as interpersonal functioning and expectations of therapy, and therapist variables, such as level of experience and ability to adapt the therapy to a specific patient [53, 54].

Whilst .b is not psychotherapy or a psychological intervention per se, it is useful to consider this existing literature when beginning to define or understand difficulties and challenging experiences of pupils. This is also important when considering that schools often perceive .b as a tool for low intensity mental health support, even when it is not necessarily intended in that way and only as an introduction to mindfulness by its developers. To be clear, the degree of translation of this lack of conceptualising and categorising difficulties and harms in psychological interventions for adult,

clinical population groups, to school pupils learning derivations of these interventions is unknown, but is certainly a relevent consideration. As will be expanded on shortly, this project will utilise non-positive experiences - what will be called 'difficult and challenging experiences' – as its central definition of adversity within this context.

1.4.2 Difficult experiences associated with adult meditation

In a similar way, the rapid rise in popularity of MBI's, in both clinical and non clinical populations, has been met with increasing concerns over their safety [55]. Traditional meditation practices, for example, are increasingly being acknowledged as having difficulties associated with their use, even though there is a focus on 'positive effects' of meditation in modern Western scientific research [56, 57]. Furthermore, difficult or challenging experiences are often not monitored or reported in trials of MBI's [55]. A recent study by Lindhal et al aimed to categorise meditation related experiences in experienced Western Buddhist meditators (not primarily people in MBI's)– particularly challenging, difficult, distressing and functionally impairing ones [56]. Based on a mixed methodological approach, they identified a taxonomy of 59 meditation-related experiences, which they categorised into seven domains: cognitive, perceptual, affective, somatic, conative, sense of self, and social. Importantly, they identified that even though the phenomenology of a particular experience may be similar between participants, the interpretation and meaning given to that experience had the potential to vary considerably. The authors were also able to identify 26 categories of 'influencing factors' across the domains of practitioner, practice, relationship and health behaviour level factors. Examples of some phenomenologies experienced included delusional, irrational or paranormal beliefs (classified as a 'cognitive' taxonomy), hallucinations, visions or illusions (classified as 'perceptual' taxonomy) and pain (classified as 'somatic' taxonomy). Similarly, an earlier study by the same group identified a taxonomy of several light related experiences (such as patterned lights and discrete lightforms) that may be elicited by some types of meditation practice, such as those that increase sensory deprivation [58].

To expand on Lindalh's study of long term Buddhist meditators, a scoping review was conducted for this thesis of articles that listed experiences of adults participating in any type of meditation practice. A non-systematic search of Pubmed and Google Scholar was carried out in October and November 2016, and January 2017. Search terms included 'mindfulness', 'meditation', 'adverse events', 'side effects', 'effects of', 'harm', 'qualitative experience', 'experience' and 'outcomes'. This revealed in total 22 articles detailing adverse, negative, anomalous, strange or mysterious events, which included 18 individual case reports (see appendix 1 for a full table). The construct of 'difficult and challenging experiences' was broadly defined as any type of non-positive experience (negative, adverse, harmful, anomalous, mysterious) from any practice listed as 'meditation'. The articles found demonstrated notable heterogeneity with regards to the type and intensity of meditation, the pre existing mental health of the individual, and the type of experience. For instance, 10 out of the 22 articles listed patients as having a previous history of a major psychotic or mood disorder. The majority of articles listed a type of meditation that was not an MBI. These included uncommon and ambiguous practices, including different sub-types of Buddhist meditation and Yoga, and different visualisation and attention techniques, some of which were invented by the participant. Sub types of Buddhist meditation present included Vipassana, Zen and Smamatha. Qi-gong and Trancendental meditation (TM) also featured prominently. Fourteen of the articles specifically stated the meditation as 'intense' or of greater than one week duration at a retreat, often with no talking, and reduced sleep and fasting, and no break of practice. Commonly listed experiences included visual dysperceptions and hallucinations; changing of reality, mental boundaries and time and space; unusual experiences too strange to describe; clear psychotic breaks and manic episodes; and severe and obsessive rumination [59-64]. Additionally, one article described a significant increase in epileptic like signs in mindfulness practitioners [65]. Five cases specifically described symptoms in people with known and likely untreated schizophrenia before entering in meditation, with another article listing all participants as undergoing active therapy [66-68]. Descriptions of challenges and odd experiences in traditional Buddhist meditation were also found – for example, unusual body

sensations, emotional swings, illusions and hallucinations are documented to exist in historical Zen practice, and paranormal abilities (such as body shrinking, enlarging, visions, out of body experiences, precognition, mind reading, controlling the mind of others and experience of past lives) are described in advanced Yogic practice from Ancient Buddhist and Hindu sources [69, 70]. Another qualitative study – an interprative phenomenological analysis (IPA) of three meditation teachers' experiences of extreme mental states in both themselves and their students – revealed experiences such as obsessive thinking, disturbing experiences and 'dealing with the unknown' [71]. The meditation teachers indicated that they themselves were not psychiatrists or psychologists, and made clear distinctions between a spiritual journey and a mental health issue. They also discussed the importance of teacher skill and training.

With regards to MBI's, Malpass et al conducted a rich qualitative meta-ethnography of patient's experiences of the mindfulness-based approaches to MBCT and MBSR. They identified several challenges such as increase in vulnerability; a sense that the difficulties experienced had increased in severity; a sense of failure; judging the practice as good or bad; finding the practices 'too weird'; and misunderstanding of the basic cognitive aspects of the practice [72]. Additionally, a recent paper by Baer et al., which at the time of writing has been accepted for publication and sent to press, has argued for more conceptual clarity around 'harms' in MBI's, and drew paralells with traditional contemplative traditions as well as the fields of psychotherapy, pharmacology and physical exercise to classify potential mediators of harmful effects in MBI's as program related factors, participant related factors, and clinician or teacher related factors [73].

Whilst the majority of studies and experiences above do not directly relate to experiences of adult participants in MBI's, or indeed pupils learning mindfulness in schools, it is important to be aware of such experiences in the broader spectrum of meditative practices, and why they may in fact differ from participant experiences during participation in more standardised meditative practices like MBI's.

1.4.3 Difficult and challenging experiences in non-mindfulness informed SBI's

There is even less information about difficulties and challenges associated with other types of SBI's for children and young people. One study looking at a universal cognitive behavioural therapy program in reducing symptoms of depression in high risk adolescents found that at 12 months post intervention, there were greater symptoms of low mood in the 'high risk' subgroup compared with the control group [74]. The authors observed that the intervention may have a potentially harmful effect when compared to usual school provision, although they also acknowledged that the higher rate of symptoms may have also reflected greater self reflection and acknowledgment of negative thinking patterns and symptoms of depression. Another meta analysis of school based social and emotional learning interventions did not look for difficult or challenging experiences, while a further study of the UK Resilience program had no exploration of difficult or challenging experiences in the qualitative section of the study [75, 76]. Difficult and challenging experiences of individual pupils were not mentioned or addressed in several other overview articles of school based interventions [77-79].

1.4.4 Summary and implications for this thesis

This introduction has highlighted that SBI's, including mindfulness informed curricula, are relevant and potentially useful interventions that can be used in schools to promote wellbeing and alleviate potential mental ill-health. However, there is a lack of conceptualisation of potential difficulties and challenges associated with SBI's – mindfulness based and otherwise. Importantly, difficult, challenging and harmful experiences, and a lack of conceptualisation and classification thereof, are an increasing focus in the adult psychotherapy literature, including for adult meditation practices. What translation these difficulties and challenges may have to the experience of difficulties and challenges encountered by young people learning mindfulness informed curricula in schools remains unclear. Since .b is a low intensity 'introduction' to mindfulness, delivered by school teachers to a general pupil group (and not considered necessarily to be a psychological therapy), it is unclear how

these concepts may overlap with understanding potential difficult and challenging expereriences of pupils, although they may provide some context. Prior to conducting empirical research, a literature review was conducted with attention to both positive experiences and non-positive (i.e. difficult, challenging, adverse, negative and anomalous) of meditation based practices in people under the age of 18, in an attempt to better understand the range of experiences that may be encountered by young people during these practices.

2. Literature review

2.1 Process

A search of Pubmed and Google Scholar was carried out in October and November 2016, January 2017, and again in June 2018. Search terms included 'mindfulness', 'meditation', 'adverse events', 'side effects', 'effects of', 'harm', 'qualitative experience', 'experience', 'outcomes', 'children', 'youth' and 'teenagers'. Articles were also identified from reference lists and pre-existing literature reviews from other articles. The intention of this search was to focus on qualitative studies, in an effort to understand young people's experiences. Although this search did not adopt a full systematic review methodology, the intention was to establish a comprehensive picture of existing research.

2.2 Findings

From this literature search, table 1.1 below was populated with all the qualitative findings regarding experiences of meditation in children. Articles described experiences in the context of several types of meditation programs – the majority of programs were conducted in school with healthy pupils, but some were conducted in other settings and designed specifically as targeted interventions for adolescents with specific problems, like chronic pain. The literature search revealed that the majority of the studies in the literature employed quantitative outcome measures. These studies were not included unless they also included a qualitative component. Inclusion criteria consisted of any study reporting qualitative experience of meditation in children – irrespective of whether these experiences were 'positive' or described as adverse, negative, side effects, anomalous, mysterious or strange – i.e. anything other than something 'positive'. Identifying the type or style of meditation intervention was critical – for a style to be included, it must have had a component of mindfulness, breathing or concentration practice, which often lead to types of practice refered to as 'meditation', 'mindfulness', 'yoga' or 'contemplation' being included. These included types of contemplation such as mantra or chanting which was practiced in some religious schools. Often, an individual style of

meditation included a blend of multiple different practices. Children were defined as being anyone up to but not including age 18. Six articles described qualitative effects of meditation in groups of young people both under and over the age of 18 (up to the age of 24 in one article) – these articles were still included as it was thought that the data was still useful, but limits to generalisability that this may have introduced were taken into consideration. In total twenty articles listing qualitative experience of meditation in children were identified, with nine of these articles describing an effect other than something overtly positive. The type of meditation was almost always mindfulness meditation or a derivation thereof, with one study using transcendental meditation (TM), two using yoga, and another using a type of mantra meditation. Table 1.2 then highlights the articles that described a difficult or challenging experience in more detail.

2.3 Difficulties and challenges associated with child meditation practices

Table 1.1: Experiences of meditation in children

Study	N	Age	Participant type	Setting	Meditation duration	Meditation type(s)	Positive Experience	Difficulty? – see table 1.2
Cain (2012)[80]	19	9-10	Healthy school children	School	10 minute daily meditation for 9 days	Raisin Walking Body scan Drawing Mountain Lake Bell in space Kundalini	Fun Energetic Exciting Calmness Participants liked sharing experiences, bonding Increase in sensory awareness Increase in self awareness Helpful with concentration Less stressed with tests Increased self efficacy	Yes
Campion (2009)[81]	54	7-12	Healthy school children	School	12-18 months	Christian mantra meditation Heterogeneous techniques (music, candles,	Relaxation Calming Emotional regulation Improved concentration	No comment

						prayer, reading Bible, silence, guided)		
Case-Smith (2010)[82]	21	8-9	Healthy school children	School	8 weeks	Yoga 45 min sessions	Feeling calm and focussed Controlling their behaviour Supporting a positive self-concept	No comment
Coholic (2011)[83]	31	8-15	Referred from child protection and CAMHS	University research lab	Initially 6 weekly 2 hour sessions, changed to 12 weekly	Groups of four Mindfulness Simple breathing Sensory activities	Fun	Yes
Conboy (2013)[84]	28	14-16	Healthy school children	School	12 week, 1-2 times per week for 30 mins	Yoga program	Athletic performance Bodily awareness Mental health Stress reduction Academic performance	No comment

							Benefits in relationships with others	
Dariotis (2016)[85]	22	10-13	Healthy school children	School	Twice per week for 16 weeks	Mindfulness and yoga based interventions	Linkages with technique benefits and ailments Keener emotional appraisal of self and others	No comment
Dellbridge & Lubbe (2009)[86]	1	17	Single adolescent female	'Life context'	5 sessions over 10 weeks, unclear length per session	Researcher led techniques roughly based on MBSR	Present centred awareness, attitude and heart qualities, self regulation	Yes
Hennelly (2011)[87]	50	11-17	Healthy school children	School	10 weeks	.b program	Awareness, self regulation, psychological effects	No comment
Kempson (2012)[88]	18	11-15	Healthy school children	School	10 weeks	.b program	Functioning, relaxation and calm, control, self transformation, perception	Yes

Kerrigan (2011)[89]	10	13-21	Paediatric and adolescent OPD at hospital	Unclear	9 weeks - interview conducted at 5 weeks	MBSR 9 week program adapted for youth	Shifts in perspectives Transformational shifts in sense of life and life orientation Positive changes in relation to coping with daily stressors	Yes
McGeechan et al (2018) [90]	16	13-15	Healthy school children	School	10 weeks	.b program	Stress reduction and improved coping	No comment
Monshat (2013)[91]	11	16-24	Healthy high school and uni students	Unclear	Six Weekly 1.5 hour sessions , supported between sessions with audio instructions and handouts	Mindfulness	Relaxing Conscious control Clarity of mind Confidence and competence	Yes
Rosaen (2006)[92]	10	12-14	Healthy school children	School	First and last 10 minutes of every day for 12 months	TM	Increased state of restful awareness Increased emotional intelligence (self-control,	No comment

							awareness, flexibility) Improved academic performance	
Ruskin (2017) [93]	17	14-16	Adolescents with chronic pain	After school	Weekly 2 hour session for 8 weeks	Modified MBSR for adolescent chronic pain	Accepting pain, thinking with a balanced mind, increased positive outlook, social support, increased awareness	Yes
Sibinga (2011)[94]	26	13-21	Paediatric and adolescent OPD at hospital	Unclear	9 weeks - interview conducted at 5 weeks	MBSR 9 week program adapted for youth	Calm and relaxed Managed conflicts Improve interpersonal relationships School achievement Physical health improvements Amelioration of HIV specific stressors	No comment
Tharaldsen (2012)[95]	40	17-21	Healthy school children	School	Approx 7-14 weeks 1-2 hours per week	Conscious coping (incorporates mindfulness)	Awareness Constructive self distraction	Yes

							Constructive self assertion	
Thomas & Atkinson (2017)[96]	16	8-9	Healthy school children	School	6 weeks	Paws b program	Enjoyable, accessible, classroom applications, wider applications	No comment
Wall (2005)[97]	11	11-13	Healthy school children	School	5 week program, 1 hour per week	Stress reduction skills derived from MBSR and Tai Chi	Self reported statements: experienced well-being, calmness, relaxation, improved sleep, less reactivity, increased self-care, self-awareness, and a sense of interconnection or interdependence with nature	No comment
Wisner (2014)[98]	35	15-19	Healthy school children	School	8 weeks, between 10-30 mins	Mindfulness meditation	Improved stress management Enhanced self awareness Emotional coping Attention State of mind	No comment

							Calm Engagement Improved school climate	
Witoonchart (2002)[99]	101	Late adolescents	Detention centre inmates	Detention centre	Intense 7 day program	Various local forms of Buddhist meditation – Anapanasati (sitting meditation), Jongrom (walking meditation)	Contentment, calm, clearer understanding of Karma, improved concentration and awareness	Yes

Table 1.2: Difficult experiences of meditation in children

Study	Difficult experience described by author	Quotation from child
Cain (2012)	'Did not like' having to keep mind focussed on imagining mountain task Difficulty with wandering and fidgeting minds; feeling 'stressed' Boredom Anxiety & concern over revealing aspect of self to others & instructor 'Weird' experience not clarified	'Sometimes…like on the mountain one…it…because you had to like lie down and imagine it…the brain just wanted to do stuff…but I didn't like not being able to do stuff…' 'I felt stressed and then it felt relaxing…' 'The drawing was difficult because I didn't know what I was like…what I was drawing myself as so… like how I am presenting myself so it was almost a bit like worrying because you didn't know what you were drawing and you didn't know how it would affect…'
Coholic (2011)	Difficulty focussing on activity	A child stated that another group

	Annoyance at other group members	member was ‘‘all jealous and she makes me mad…she interrupts me.’’
Dellbridge & Lubbe (2009)	Self judgment and criticism at not doing practices perfectly	‘I was just like hoping they would stop I guess, because I found it not hard, but harder to listen to what he was saying and focus completely on that and as well as breathing. So yes, I was just wanting to the noises to stop’
Kempson (2012)	Distractions Difficulty concentrating ‘Particular difficulties overcoming certain emotional responses’	“it didn’t really feel like it made any difference so then I did it a few other times when I thought I had to do it coz it was prep but I didn’t really find it very helpful coz I found it just frustrating that it wasn’t working for me’ “I found it quite hard at the beginning sort

		of yeah. Sort of starting off, getting into the mind-set"
Kerrigan (2011)	Noted to not be easy 'Tough to sit still' Initially found it weird	No further information.
Monshat (2013)	Emotional distress, freaking out Self doubting, self questioning voice	''I was really, really stressed. I was actually quite distressed about being, you know, being an adolescent, that's what adolescents do. Freak out.' "You're always saying to yourself, Am I doing the right thing? Or I'd put myself in someone else's shoes and I'd think if I was looking at myself I'd think I was lazy and it's a kind of self-hate cycle and you get that anxiety as well.'

Ruskin (2017)	Expectations for intervention not clarified to participants Not enough time given to understand and participate in practices Addressing pain sensations 'not paced enough' – participants asking for more 'attitude of openness and softness'. One participant found it 'not very comfortable' and 'irritating' to turn attention to pain all at once	"I found those ones irritating because it brings to mind everything, I know it is mindfulness so you are supposed to take it all in, but I liked it better when we were taking it in, in steps whereas when we were doing meditations it was all at once and that was not very comfortable.'
Tharaldsen (2012)	Didn't like visualisation technique Maintaining awareness as difficult	No further information.
Witoonchart (2002)	Flashbacks of criminal behaviour and victims Painful and disheartening experiences	No further information.

2.4 Overview of research examining meditation experiences in children

Consistent with research showing small to moderate beneficial effects of mindfulness and meditation informed curricula at a group level, the majority of experiences were reported as positive, with only nine articles listing anything described as a difficult or challenging experience. In contrast to the difficult experiences listed by adults, the difficult experiences of the young people described by these articles were relatively mild – the young person not liking or having difficulty with the task, feeling bored, experiencing self doubt or judgment, distraction, experiencing emotional distress, feeling concerned about revealing an aspect of inner life to others, and 'weird' experiences that were not further clarified. In general, these experiences were rarely explored in more detail. This is also consistent with the differences noted in the adult literature mentioned in the introduction to this thesis, where the meditation interventions used were often of greater intensity and duration.

2.5.1 Review of studies reporting difficult or challenging experiences

Kerrigan et al. (2011) investigated the effects of 4 weeks of the 8 week MBSR session on 10 adolescents aged 13-19 by conducting a one hour semi structured interview. Notably, whilst exploring general experiences of mindfulness, participants acknowledged the difficulty that mindfulness techniques can present, such as difficulty with prolonged sitting in silence, and challenging to learn to 'tune in' to their body. One participant found the practices initially 'weird' but this was not clarified further. Participants acknowledged the discipline and perseverance required with such practices. The authors did not explore these experiences in more detail, although one participant stated they were aware of the benefit within themselves of doing the exercise even though it was difficult at times. What this specifically meant was not explored further.

Cain (2012) investigated the effect of a 10 minute meditation session over 9 consecutive school days, on 19 children aged 9-10 at school. The intervention was delivered by the researcher. Data were collected using a semi-structured interview. Some participants did report difficult and

challenging experiences, which were themed by the author as 'uncomfortable' experiences, particularly when the participants 'became aware of reactions and urges that were contrary to the instructions given'. One pupil described her brain wanting to 'do stuff' contrary to the focussing instruction given in the practice. Another pupil described feeling stressed when his mind was wandering. Pupils also described some of the tasks as boring. One pupil reported a concern about being uncomfortable revealing an aspect of her inner life – how she was 'revealing herself' – to the instructor and other participants. Another pupil commented on a 'weird' experience that was not clarified by the interviewer. The author discussed some issues with the participants and no more lasting effects were noted; however what the participants may make of these experiences in the long term is unknown, and specific meanings that the participants gave to these experiences were not explored in detail. The author did not explore possible contexts surrounding these experiences.

Kempson (2012) interviewed conducted selected focus group interviews with 18 regular school pupils aged 11-15 who had participated in the 10 week .b program. These pupils were selected from a larger cohort of pupils undergoing quantitative analysis. These pupils reported a number of positive outcomes which were noted under themes such as 'functioning', 'relaxation and calm', 'control' (including emotional, cognitive and attentional control), 'perception' (including awareness and transformed scepticism) and 'self transformation' (including empathy, self regulation, approach motivation and insight). Two further themes were also identified – 'barriers to engagement in mindfulness practice' and 'barriers to the effectiveness of mindfulness practice'. Pupils identified that the course was too short to fully understand the concepts and techniques taught in it, and that there was a lack of guidance on how to perform practices outside the classroom. Other themes included pupils feeling that the course lacked personal impact for them, practices being difficult to carry out, frustration that it wasn't working, forgetting techniques, having other priorities in life, and only using techniques when they felt like they were faced with a specific difficulty. With regards to difficult and challenging phenomenological experiences, pupils reported feeling very self conscious with how others would perceive them, having difficulty maintaining attention and being

distracted by others, finding it hard because of not being in the 'right mind-set', and difficulties described by the author as 'particular difficulties overcoming certain emotional responses while performing techniques', which was evidenced by a quote from a pupil saying 'I try to do my breathing but then I just get frustrated with the breathing coz it takes sooooo long'. These experiences were not clarified in further detail, nor were the contexts explored further.

Tharaldsen (2012) interviewed a small subset of high school students (7 pupils aged 17-21) participating in a larger trial comparing the use of conscious coping (a type of coping skill incorporating mindfulness) against a control group. Students participated in the exercises for between 7 – 14 weeks for 1-2 hours per week. These students identified positive outcomes such as increased awareness, and improved mental techniques called 'constructive self distraction' and 'constructive self assertion'. This study also explicitly referenced what students found difficult about the program, such as finding performing some exercises difficult, not wanting or believing they could do the task, and having expectations about what may happen. These comments were not explored further by the investigator. Limitations to this study included the older age of the students interviewed.

Monshat (2013) interviewed 11 young people (aged 16-24) about their experiences following a 6 week mindfulness course. The researcher had 'extensive professional and personal engagement' with the program deliverer. The study identified that the initial response to the mindfulness program may be 'freaking out' and 'overreacting', followed by a progressive gaining of stability and then clarity. This initial phase was catogerised by emotional volatility, sensitivity and self doubt. Emotions in this first phase were dealt with by 'shutting them out' or reacting impulsively. Later themes such as increased agency and clarity then evolved from this, but it was noted that participants could return to the first stage at any time. This description did give a context to some of the difficult experiences that were encountered, and particularly how they changed or evolved as a result of

practice. Of note is this study involved people over the age of 18 as well, which may have lead to different experiences or greater capacity to be aware of or describe certain experiences.

Coholic (2012) investigated the effect of an art-based mindfulness group on young people aged 8 to 15 who were referred from a local child protection agency. The study was conducted over a period of four years, with groups undertaking weekly 2 hour sessions. The methodology was changed mid study as the program duration changed from 6 weeks to 12 weeks. Participants were interviewed 2 weeks after the program ended using a semi structured interview guide. The intervention was delivered by the lead researcher with assistance from other professionals of diverse backgrounds. Two difficult or challenging experiences were mentioned – firstly, that 'almost all' of the participants had difficulty focussing during the meditative activities, and the second that participants reported difficulties regarding group dynamics with other young people – for example, finding another group member annoying. These experiences and their surrounding contexts were not explored in more detail.

Witoonchart & Bartlett (2002) measured the effectiveness of a seven day intense meditation program on 101 male adolescents in a detention centre. The youth were taught a local form of Buddhist meditation. The authors did not lead the meditation themselves, and they didn't conduct interviews; instead, they offered a questionnaire after the program which all the youth answered. The authors reported that 23 per cent of the youth found early meditation practices painful and disheartening, and 22 per cent had flashbacks of their criminal behaviour and their victims. No further detail of these experiences were commented on, and these experiences were not discussed with the young people.

Dellbridge and Lubb (2009) conducted a detailed case study of a single 17 year old's experiences of meditation sessions informed by MBSR practices. These practices were conducted as part of the participant's daily life and the study involved unstructured interviews, creative expression, journals and field notes. The sessions were facilitated by the primary researcher and were conducted in 5

sessions over 10 weeks. The participant reported initially being very harsh on herself as she was not able to conduct the practices perfectly. Her attention and awareness were also reported to be frequently interrupted by her inner critic 'voice'. Since the young person's experiences were captured in detail, she was noted to be able to report an attitudinal shift after some time, in that she appeared to develop some insight around this characteristic and subsequently become more compassionate.

Ruskin et al. (2017) interviewed 17 adolescents aged 15.8 ± 1.2 years old following a mindfulness based intervention to help manage chronic pain. The intervention was lead by two of the authors, including the lead author. They identified themes such as increased mindfulness skills such as present moment awareness, positive outlook, and emotion regulation, among others. There were also some difficulties mentioned in this study. Firstly, one participant found that an exercise directing greater focus on pain brought feelings of irritability and also discomfort, particularly as the intervention was noted to teach exercises 'all at once', causing other participants to ask for a more 'paced' approach to this. Another difficulty was that participants advocated for more clear expectations at the start of the course – in particular, that the program may assist with pain related distress but not with the pain itself. Participants also asked for extra sessions to assist in engaging with the practice and understanding it better.

2.6 Summary

Twenty articles were identified detailing young people's qualitative experiences of learning meditation, usually either studied in school or in a clinical context. Of these, nine articles listed a difficult or challenging experience, and in the majority of studies these were not actively acknowledged, discussed, or sought after. The difficult and challenging experiences were having difficulty with the task, feeling bored, experiencing self doubt or judgment, distractions, experiencing some type of emotional distress, experiencing increased discomfort in the context of chronic pain, feeling concerned about revealing an aspect of inner life to others, and 'weird'

sensations. Issues with the pace of the practice, clarity of expectations or aims, and length of exposure, were also raised by one author. These experiences, particularly the individual meaning to the young person and how they might make sense of these experiences in the context of their lives, were not often explored in detail. Similarly, other contextual factors which may have contributed to these difficulties and challenges were also rarely commented on. There was also a wide array of non-standardised and modified meditation practices used, which were commonly delivered by the researcher themselves, over variable time periods, and in different settings, to both clinical and non-clinical groups. Finally, it is also not clear how differences in duration of practice, type of practice or clinical or non clinical participant may have impacted on the experience for that participant.

Current Study

The findings above highlight the need for a study explicitly examining the potential occurrence of experiences that school pupils, who are learning a popular and widely disseminated standardised, 'universal' mindfulness curriculum – such as .b – find difficult and challenging. Such a study should include a rich exploration of individual pupils' phenomenological experience, including the meaning attributed to any such experiences, as well as an exploration of the context in which they occurred, and conducted by an independent researcher. Exploration of individual context may help to identify factors – such as in vulnerable or high risk pupils – that may contribute to difficult or challenging experiences. This may also help inform guidance around delivery of other similar programs.

2.9 Research aim and rationale

- 2.9.1 Primary Aim

- To explore difficulties and challenges encountered by pupils during participation in a standardised, universal classroom based mindfulness informed program (the 10 week .b program).

- 2.9.2 Secondary Aims
  - To explore how pupils, if at all, understand and conceptualise their difficult and challenging experiences.
  - To explore contexts surrounding any difficult and challenging experiences.

3. Methods

3.1 Epistemological stance

The project was designed from an interpretative epistemological position which led to a qualitative methodological approach. This is primarily due to the concern of capturing quality and nature of experience, not primarily cause and effect associations [100]. Importantly, meanings and meaning attributions were deemed to be of particular importance in this study, since similar experiences occuring within different people could often have different meanings attributed to them. Quantitative approaches, while considered initially, were rejected on the grounds of being too linear and narrow, and unable to capture and define the large array of potential experiences, nor adequately attribute individual meanings to these experiences. The study of difficult and challenging experiences in mindfulness informed curricula is also a new and emerging field where, as established in the introduction, existing literature is related to different population groups and practices. Furthermore, research with children and young people was highlighted as an area which can particularly be biased towards being understood through the lens of adults [101, 102]. A view from the perspective of the children was thus highlighted as being of particular importance – falling into line with the aforementioned aim of capturing individual experience and meaning. Thirdly, as highlighted by the literature review, the majority of studies of experiences of mindfulness in children and young people were quantitative in nature. Hence, when exploring difficult and challenging experiences, it is important to explore this qualitatively so that systems of conceptualisation and theoretical constructs can be modeled in an area where this is otherwise lacking.

3.2 Research design

3.2.1 Case studies

This project was designed from a case study perspective. A case study is ‘an investigation of contemporary phenomena within its real life context, especially when the bondaries between

phenomena and context are not clearly evident' [103]. The case for this project was identified as the four secondary school classes participating in the study, and the unit of analysis – that is, the major entity of enquiry within the study – was the interaction between the teacher, the curriculum and the pupil. These classes were chosen because they represented the typical school classroom where .b was being taught and learnt. Since the aim of this thesis was primarily to capture experience and meaning making as it occurred within the social context of the typical school classroom, ethnography was felt the most appropriate approach to inform data collection – consistent with ethnography as a 'cultural description' [104]. Ethnography has variously been referred to as 'the work of describing culture', 'any research conducted in the natural field setting', and a 'detailed and accurate description of some natural setting' [105-107]. Thus whilst the study does not consitute a full ethnography, aspects of the design, such as the embedding of the researcher within the classroom to better understand the whole context, were influenced by this approach to data collection.

3.2.2 Recruitment

Pupils were purposively sampled from a large pool of schools with established links to the research department, who were known to have implemented a .b mindfulness programme in the past. Additionally, 20 .b mindfulness teachers in the region were emailed directly asking if they were teaching classes and if they would participate. Three schools that were delivering the programme in the relevant academic terms to permit data collection were ultimately recruited. These schools were selected from a broader group of schools and teachers expressing initial interest to ensure a spread of school type, pupil age, socioeconomic status and previous exposure to mindfulness and .b.

3.2.3 Classroom observations, videoing and journals

In order to capture the in-depth learning and teaching experiences of pupils, each session of the .b program was observed and notated in a semi structured format consistent with case study research. The researcher used a semi-structured framework incorporating comments on general environment,

appearances, verbal behaviour, physical behaviour, interactions, and a reflective section for the researcher's internal state (see appendix 10). Each session was also video recorded and analysed to assist with providing a more detailed assessment of quality of teaching (incorporating measures of teaching style, method and pupil responsiveness, among others, as coded by the Mindfulness-Based Interventions Teaching Assessment Criteria Teacher Addendum (MBI-TAC-TEACH)) surrounding any experiences and responses observed and reported by both teacher and pupil group (see appendix 2). Before each session (excluding the first session) and after each session (excluding the last session) all pupils were asked to fill in two 'journals'. The journal before each session asked the pupils three short questions about their experiences during the week since the previous session, including related to any home practice they may have completed. The journal after the session asked three similar questions related to the pupils experiences during that session. The journals aided in capturing experience while the pupil was still able to recollect that experience, rather than waiting for the interview. It also helped to provide a more personal or intimate nature to the data collection. See appendix 9 for a copy of these journal proformas. Pupils who did not consent to either part of the study still filled in these journals so that all pupils in the class followed the same procedure, however these were not collected and used as study data. Furthermore, pupils who did not consent to being observed or video recorded sat in a position in the classrooom behind the video camera and the researcher. The researcher was able to observe all lessons in school 2 and all in school 1 except for lesson 3, which was missed due to a last minute timetabling change. The two classes in school 3 had lessons 2, 4, 6, 8, 9 and 10 observed, due to conflict with attending another school on one of the days the lesson was taught.

3.2.4 Focus group and individual interviews

At a point midway through and again at the end of the course, focus group interviews were conducted. The first time point was chosen so that pupils could provide their experiences up to the mid way point of the program, rather than waiting until the end when they might have forgotten

their initial experiences. The second time point was at the end of the program, so that pupils could give their overall experiences, as well as provide any comparison to their first focus group session. These focus groups followed a semi structured format, consistent with understanding themes of the lived everyday world from the individual perspective of the people involved [108]. This type of interview has an element of 'naturalness' and freedom of response by the respondant, but also a specific agenda, approach and technique [108]. The numbers of pupils in each focus group were five, in accordance with standard protocol for interviews with children and young people [109, 110]. These focus groups were conducted with two or three interviewers, all of whom participated in asking questions. Following the second focus group interview, pupils were immediately invited to participate in an individual interview one-on-one with an interviewer (one of three available), to explore individual experience and meaning making more deeply. Discussion was facilitated by referring to pupils' previous responses in focus groups as well as proceeding diary entries. School 1 and 2 followed the full protocol described above, while school 3 had only one set of focus group interviews during week 9 (for class 3) and week 10 (for class 4). There was no middle set of interviews and no individual end interviews due to timetabling conflicts and time availability of pupils. A modified focus group proforma was subsequently constructed for use in school 3 which was a combination of the existing first and second round interview proformas. See appendix 7 for copies of these questionnaires.

3.2.5 The sample demographics

Four classes in three schools were recruited:

Class 1: A year 7 class in a secondary school rated 'Good' by the Office for Standards in Education, Children's Services and Skills (OFSTED) at its most recent inspection. Pupils were aged 11-12 and were taking part in the .b program as part of their normal school provision (i.e. a compulsory component of the school curriculum). School characteristics were 27.5% free school meals and 1% first language not English, in an area with an Index of Multiple Deprivation rank in 2015 of 12691

(where 1 is the area/neighbourhood in the UK with the highest level of deprivation, out of 32884 areas)[111]. The class size was 26 pupils, of which 24 consented to filling in diaries and being observed and video recorded in class, and 15 consented to being interviewed. There were 11 males and 13 females. 14 pupils participated in the first round of interviews and all 15 participated in the second round and individual interviews. The program was delivered by a familiar member of staff who normally taught humanities and social sciences (designated teacher 1 in the results).

Class 2: A year 11 group in a secondary school rated 'Good' in latest OFSTED data. Pupils were all aged 15. School characteristics were 7.8% free school meals and 12% first language not English, in an area with an Index of Multiple Deprivation rank in 2015 of 13906. Group size was 7 pupils, of which 6 were female and one was male, and all 7 consented to fillling in diaries, being observed and video, and being interviewed. These pupils were identified by the school as having some low-grade issues such as stress around exams, and were invited to participate in the program voluntarily. Four pupils participated in the first focus group interview and five in the second round and individual interviews. Two teachers co-delivered the programme, sometimes swapping week to week, other times swapping within a lesson, to deliver the .b program, in the pupil's 'tutor' time (these are designated teacher 2a and 2b in results).

Class 3: A year 9 class in an independent secondary school with the highest quality rating from the Independent Schools Inspectorate, and an Index of Multiple Deprivation Rank of 20568. Pupils were all male, were aged 14, and it was compulsory for them to participate in the .b program. Class size was 15 pupils of which all consented to diaries, observations and interviews. 12 pupils were present on the day of the focus group interviews, which was after the final lesson.

Class 4: A year 9 class in the same secondary school as class 3. Pupils were all male and aged 14. Class size was 20 pupils of which 19 consented to observations, video recording and diaries and 15 consented to interviews, of which 14 presented on the day and interviewed after the lesson in week

9. The .b program was delivered by the same teacher as class 3, who also teaches other lessons in the school (designated teacher 3 in results).

Total pupil numbers: 65 pupils who participated in classroom observations, video recording and diaries and 46 pupils participated in interviews (after drop outs and absentees).

3.2.6 Coding & Analysis

Interview recordings were transcribed by an independent third party company. These transcripts, alongside classroom observation notes and pupil diaries, comprised the data set for each school. Each school's data set was coded individually by the primary researcher. The data set for each school was coded by hand, with initial codes being written down the left hand side margin of the interview transcripts, observation notes, and diaries. This process was then repeated. Initial themes relating to the data set were then generated on a separate piece of paper by hand. These themes were then transferred to Microsoft Word (outline mode) and refined to produce a second set of themes. Once each school's data set was outlined on Microsoft Word, these data sets were combined to produce meta themes relevant to all three schools. This produced one overall picture of the entire data set and did not aim to compare time points within schools or between schools, or describe individual pupil case studies.

During this process, a meeting was held with the primary researcher's supervisor, secondary supervisor and two junior members of the research team. Each member compared a list of codes and themes generated from the interview transcripts from school 1. Differences in themes and codes were discussed and debated, with this process further influencing the primary researcher's choice of themes.

The data set was coded using an inductive thematic approach and analysied using thematic analysis. Thematiyc analysis involved identifying, analysing, and reoprting patterns – called 'themes' – present within the data [114]. Inductive strategies were followed rather than template coding strategies for this first part of data generation.

3.2.7 MBI-TAC ratings

Teachers all received a rating of 'competent' (above 4 on a 6 point scale) in each domain of the MBI-TAC - domain 1: coverage, pacing and organisation of session curriculum; domain 2: relational skills; domain 3: embodiment of mindfulness; domain 4: guiding mindfulness practices; domain 5: conveying course themes through interactive inquiry and didactic teaching; domain 6: holding of group learning environment. This suggests that the pupils studied received adequate exposure to the programme as intended and that it was delivered with sufficient skill overall.

3.2.8 Validation strategies

Validation strategies were considered in line with Tracy's (2010) outline – worthiness of topic, rigor, sincerity, credibility, resonance, significant contribution, ethical and meaningful coherence [115]. Triangulation of methods was achieved through use of video recording, audio interviews, diaries and classroom observations. Frequent debriefing sessions were held with the researcher's supervisors and well as with other members of the data collecting team. Peer scrutiny of the project, including evolving themes, were welcomed through reviews with peers and team meetings with the wider research group. The researcher's reflective commentary was recorded after each session in the classroom observation notes as well as in a personal diary. An audit trail was maintained during the entire process of this study (see attached in appendix 4). A bracketing interview was also conducted by the researcher and a supervisor (see attached in appendix 4). Multiple group coding meetings were held in order to discuss validity and inter rater reliability of codes – there was one group coding meeting (with five researchers), and two further individual meetings discussing the data and how to approach coding (both with two other researchers). Furthermore there were multiple email

correspondence with co-supervisors discussing themes and subsequent exploration thereof. Themes were revised multiple times over a 6 month period and discussed with both supervisors.

3.2.9 Ethics approval

Ethics approval was sought and granted from the University of Oxford Research Ethics Committee (ethics approval number R51869/RE003). Information and consent forms were generated for school headteachers, classroom teachers, and parents, while an information and assent form was generated for pupils. These were emailed to the schools followed by collection of hard copies with signatures. For one school, the parental and pupil information consent and assent forms were generated using the Qualtrics online software, and an ethics ammendment was sought and approved for this. Safeguarding and risk matrix assessments were completed to allow for awareness of and proper management of any difficult and challenging experiences that may require further attention – these were to be referred to the classroom teacher or safeguarding officer. The SD card used to video record the pupils was stored inside a lock box that was kept with the classroom teacher. Other information such as observation notes used by the researcher were transported securely and stored in a locked drawer at the research facility.

4. Findings

Through the coding process listed above, five superordinate themes were identified. These were difficult and challenging experiences, pupil contexts, teacher contexts, the curriculum, and school contexts. The full list of super and sub ordinate themes are displayed in table 1.3 below. Key examples only are included in the text. Contrasts and variations of pupil's experiences between different schools, as well as any changes experienced throughout the course, are also discussed.

Table 1.3 Super and sub ordinate themes

Superordinate	Subordinate
Difficult and challenging experiences *Some pupils had trouble with certain experiences relating to their thoughts, feelings and sensations; 'I found it difficult not to cry'*	1. Troubling thoughts and challenging emotions 2. Feeling judged 3. Mixed effectiveness 4. Awkwardness 5. Weird or uncomfortable sensations 6. Difficulty with certain practices
Pupil contexts *Pupils' interpretation and understanding of the course, as well as other factors relating to their education experience may have impacted their phenomenological experience*	1. Interpretation & misinterpretation 2. Classroom contexts 3. Degree of mastery 4. Pupil factors
Teacher contexts *Factors relating to teaching the course may have impacted on pupil experience*	1. Intention 2. Managing difficulties 3. Delivery 4. Change in role identity
The curriculum *Factors relating to the content and structure of the curriculum*	1. Structure 2. Content

may have impacted on pupil experience	
School contexts *Factors relating to the school's structuring of the program within the existing school system may have impacted on pupil experience*	1. Scheduling 2. Pupil group

Key for quotation references:

FG – focus group (either FG1 or 2 for school 1 and 2, or just FG for school 3 as only one time point)

DE – diary entry

II – individual interview

TI – teacher interview

ON – classroom observation notes

4.1 Superordinate theme: Difficult and challenging experiences

A number of difficult and challenging experiences were described by pupils. These are described and explored below, taking into account the contexts in which pupils were operating and the similarities and differences between pupil experiences.

4.1.1 Subordinate theme: Troubling thoughts and challenging emotions

A salient theme emerging in some pupil accounts was the description of an increased prevalence, awareness of, or triggering, of thoughts described as 'negative', 'bad' or in one case, 'evil'. For example, one pupil described difficulties with a practice that was designed to illustrate mindfulness

of thoughts. In this practice, a metaphor is introduced in which thoughts are described as like buses passing by, which one can choose to engage with ('get on the bus') or simply observe from a decentred perspective ('watch the bus go by'). This pupil described that:

> '[The] thought bus one kind of made me really worried, because I started to notice when the bad thoughts came, and like they stay in my mind all day and I couldn't get rid of them… when Miss said 'Try and notice the good thoughts' I found it really hard to like not think about the bad thoughts, because that would just stay in my brain….they made me a bit worried, that practice, because I would start to think about the bad thoughts, and when I think about them I couldn't get them out of my head, like some things aren't bad, but I just didn't like thinking about it… I couldn't think about anything good and that was just staying in my brain… I've tried to do some of the practices, like 'Don't hop onto the thought bus' and just be aware of what's happening and think about the good things, but like it's really hard, because when she started to say about bad thoughts, I started to think about the bad thoughts and that got me worried about not being able to think about the good things, which got me worried more.' [FG 2, school 1, Pupil 11, female]

This pupil also reiterated that her teacher said to her 'You need to try and not think about the bad thoughts and notice the good things in life' and 'Try not to hop onto the thought buses and try to think about the good things, not the bad things'. This pupil also commented that this process was 'painful'. When probed about what she meant she said: "if there was a thought, like 'I've got an exam today' or I've got to remember something, and it's stuck in my brain all day, then I get a headache, 'cause I keep thinking of that same thing." [II, school 1, Pupil 11, female].

Another pupil had a similar experience, seeming to describe that even the mentioning of 'bad thoughts' by the teacher triggered a fixation on bad things:

> 'When we did the thought buses, when Miss was like 'think about the bad thoughts, and think about the good', I couldn't really focus on the good things'. [When asked whether this had changed over time, she said]… I think I'm improving a lot, slowly, but I'm doing it. I think sometimes I'm just quite negative. But you've got to be positive about life and that's the thing'. [II, school 1, Pupil 18, female].

Another pupil, again describing a cycle in which attempted suppression or blocking out of thoughts led to them rebounding, said:

> **"**If I have to think about it, it makes me think more about that thing, then I worry about it….. I think it's the thought buses…. 'cause if I try to block something out, I think about it even more. [Interviewer asks whether pupil is 'trying not to get on the thought buses']… I try to block them out, and that makes me think about blocking them out, and that makes me think about blocking them out, and then I think about thinking about blocking them out. [II, school 1, Pupil 7, female].

Another example came from a pupil [JE, week 3, school 1, Pupil 24, male] who reported in his journal that he was 'blocking out evil thoughts' and 'ignoring bad thoughts'. In response to the diary question 'Did you have any experiences this .b lesson that were difficult or challenging?' he wrote 'To stop being nervous or scared about my thoughts.'

When interviewed this pupil perceived there to have been beneficial effects of the programme, but described this in a rather mixed way, as he also reported a time when it made a difficult thoughts worse:

> 'There was one thing that got me quite upset, but now I'll think about it, I'll notice that it's a bit emotional, but I've got to look on the bright side of things and notice the good instead of the bad. If you're always worrying about it, it's 'gonna make it even worse. I mean so to always try look for the positive instead of the negative. I'm not getting upset anymore. Yes, I might do every now in a while, [but] it's (.b) helping me cope, it's like some sort of guidance. And it'll help me with sort of ignoring all the bad stuff and notice the good.' This pupil also went on to say that 'There was a time where it didn't really help. 'Cause I was trying. But it just made it even worse'. [II, School 1, Pupil 24, male]

To summarise the above, Pupil 11 and 18 described an increased awareness of and fixation on negative thoughts, while Pupil 7 described an increased prevalence of negative thoughts. Pupil 24 described being nervous and scared of his own thoughts, which he described as being evil and bad, as well making difficult thoughts worse on an occasion. Pupil 11 and 7 seemed to have similar (mis)understandings of the exercise, thinking its intention was to block out bad thoughts, whilst Pupils 18 and 24 also interpreted the instructions as including the attempt to focus on good thoughts.

Difficult thoughts did not only occur in the context of misunderstandings of practice intentions, although this was a prominent observation. An older pupil, from school 2, also described becoming more aware of negative thoughts in a way that led to interference with her daily activities, stating:

> [When doing the exercises] I just thought about every other bad thing in my life. Like when I do it I'm just like… When I do it, because I end up not thinking about everything else, I'm thinking about… like all the bad thoughts come into my head instead of what's going on around me. [Interviewer asks what happens over time] … Some of them go away quicker than the other ones, depending on what they are. I don't know, because if I am thinking something, I'm upset or whatever, no one's going to be able to make me happy just like that, but then that will interfere with whatever I do next [FG2, school 2, Pupil 2, female].

Likewise three pupils from school 3, class 1 (all male) also described a worsening of difficult thoughts as a result of doing practices:

> Pupil 1: With the snowballing exercise, I [began] realising what things I would have let spiral out of control. So I felt those. Going through it, I was thinking about it again.
>
> Pupil 2: Yeah, there were trigger words brought into my head 'this isn't the thing I want to be thinking about.'
>
> Pupil 3 Sometimes as well I just think of a bad memory – it may be something that triggers it – sometimes I just think of a bad memory. I try to block it out but it's quite hard to do that. I just sort of relive it a bit. It stays for probably half an hour. Until I get distracted by something else it stays there. I don't like thinking back to some bad things.
>
> Pupil 2 – That also happened for me. [FG, school 3, pupil 1, 2 and 3, all male]

In a similar way to the previously listed pupils, these pupils described triggering of negative thoughts, which had the tendency to linger. The pupils from school 3 described a bad memory or negative thought being triggered, attempting to block it out, reliving it, and then having it stay with him for a while. This potential for exacerbations of negative thinking was acknowledged by the teacher of school 3:

> 'Relatively few people feel worse in inverted commas, but some do, and that's when you have to sort of go, 'Okay', and that's when you probably ask them to stay behind and have a chat about what was going on… It might be that they've had a memory about something'. [TI, school 3]

Some pupils disclosed similar experiences as the above, but more relating to emotions which they described as difficult and challenging. For example one pupil [Pupil 8 from school 1, female], despite describing beneficial effects of the course in managing some interpersonal relationships and dealing with nightmares, said:

> 'I know all the tasks and that are to help us with our emotions, all the breathing. It helped me with other emotions, not happy ones, like sad ones, about my Nan.'
>
> Interviewer: Has .b made your emotions worse?
>
> 'In some cases, yes, because it's like I've been crying a lot more at home, because I'm thinking about a lot more stuff, because my Nan…' (Pupil 8's grandmother had recently passed away).
>
> Interviewer: Do you think that you're thinking about that more because you're doing the exercises in .b?
>
> 'I don't really think about it unless I'm doing .b, because with .b it says to think about your emotions, think about your breathing, but when I do the .b at home it's just like I think about my Nan, and she died in a really bad way.' [II, school 1, Pupil 8, female]

In another example, a pupil [Pupil 3 from school 2, female] described feeling frustrated that some practices seemed to make things worse – she described situations where she was in a shopping mall or walking down a corridor at school, felt anxiety in that moment, and subsequently did a practice. However, rather than helping her, it seemed to make the anxiety symptoms worse:

> 'I just feel like everybody is watching me and everything is very loud, and I can hear everyone. I feel like everybody is talking about me. So, I just do that (a practice) and then it just makes me feel it more, it just makes me want to leave.' [II, school 2, Pupil 3, female]

Examples from diaries of other pupils in school 1 displayed similar examples of difficulty dealing with emotions – Pupil 6 wrote in her diary:

> 'I found it difficult not to cry when I thought about somebody' (DE, school 1, Pupil 6, week 9)

Pupil 25 wrote:

> 'I thought about my cousin and that made me sad' (DE, school 1, Pupil 25, week 9)

These entries were both in response to the question 'Did you have any experiences this .b lesson that were difficult or challenging?' Both these pupils did not consent to interview so these comments were unable to be explored further.

Pupil 24 from school 1, covered above, also struggled with difficult emotions.

Pupil 7 from school 2 (female), in response to the question in the diary 'Did you have any experiences that were difficult and challenging?' wrote:

> 'Not really just cried' (DE, Pupil 7, school 2, week 2)

And:

> 'Not really, just understanding the feelings.' (DE, Pupil 7, school 2, week 4)

Pupil 7 dropped out of the course after week 4 and was not able to be followed up interviews.

To summarise this section, some pupils across all three schools experienced increased awareness of, triggering, or fixation of negative or 'bad' thoughts, including difficult memories. In some cases, these had the tendency to linger for a period of time after the practice had finished. Some pupils, particularly Pupil 8 from school 1, described an increased awareness or experience of difficult emotions, such as sadness. In school 1, 5 out of the 15 pupils interviewed (33%) described an increased experience of troubling thoughts or emotions (4 female, 1 male), while in school 2, 1 out of the 5 interviewed (20%) described increased negative thoughts (1 female), and another two (40%) described increased experience of or difficulty in dealing with emotions (1 male, 1 female). In school 3, 3 out of 26 (11.5%) described an increase of negative thoughts (3 male). The interpretation of the nature of the exercise – namely the thought bus exercise – may have contributed to these experiences, particularly for the younger pupils in school 1. The older pupils, from school 2 and 3, did not seem to interpret thoughts in terms of 'good' or 'bad', but, alongside some pupils from school 1, such as Pupil 8 and 24, tended to refer more to interpretation as 'blocking' or 'ignoring' difficult

thoughts. Pupil interpretations of the content, particularly the thought bus exercise, are elaborated in more detail in the pupil interpretation section. The level of support pupils were receiving in dealing with these difficult thoughts and emotions will be discussed in the teacher context section.

4.1.2 Subordinate theme: Feeling judged

A number of pupils made statements or comments which suggested that they felt judged in some way by the programme. For example Pupil 8 from school 1 described the programme by saying:

> 'It's practically saying 'You're a grownup now, grow up, hurry up, get up', it's being mindful, 'Don't be a child'. [II, school 1, Pupil 8, female]

Another pupil, who stated that she was 'not really feeling much at all' and not having very many emotions, 'I just have angry and that's all I have. I don't know'. She added 'When I was younger, I would get excited about things. Now, I just stay on a constant nothing'. She also described a sense that the curriculum was not validating her anger:

> 'I wouldn't use it because, I don't know, when I'm angry, I don't want to be like 'Oh, let me calm down,' I'm like 'Nah, I'm good at being angry' [FG2, school 2, Pupil 3, female].

This was then reinforced by a peer in the focus group at this school:

> 'I think sometimes it's nice to feel the emotion – as in you're actually *there*. Depending on what's happened, sometimes I feel like it's okay to actually be angry about something'. [FG2, school 2, Pupil 6, female]

In both cases, echoing the findings concerning difficult thoughts, to some extent this appears to relate to the pupils' interpretation of the intentions of the course as being intended to reduce negative thoughts and feelings (through blocking or ignoring) and hence calm them down. There may have been an element of implicit behavioural control from the school also present here. This

pupil's sense that she should 'calm down' may have ultimately translated across into the perceived lack of effectiveness from the course – that 'nothing helps'.

This sense of a lack of effectiveness from other pupils is also explored in the next section.

4.1.3 Subordinate theme: Mixed effectiveness

A number of pupils found the course or particular practices to be ineffective. Sometimes, this seemed to be due to pupils trying practices with no perceived effect, as with Pupil 4 from school 3:

> 'I've tried it and I don't really feel like it's working for me'. [FG, school 3, Pupil 4, male]

Pupil 5 from school 3 had a similar comment:

> 'I only really did the home practice when we got set a task, and even then I didn't do all of it because I didn't feel that much of an impact happening'. [FG, school 3, Pupil 5, male]

This sense of practices not working was reiterated by Pupil 15 from school 1, who wrote in her diary:

> 'None of them are working for me. No practices ever work for me to be honest' [DE, school 1, Pupil 15, weeks 1, 4, 6, 7]

In a similar way, some pupils described not seeing the purpose of different practices, which in turn caused them to find them ineffective. For example, Pupil 15 from school 1 wrote in her diary:

> 'Some of the practices, I don't really see the point of and didn't work for me at all.' [DE, school 1, Pupil 15, week 3]

Pupil 6 from school 3 also said some practices were more relevant than others, and that some just weren't interesting. Pupil 6 also said that a lot of the course content isn't necessary – something explored further later on in section 4.2.

The lack of effectiveness also translated into a lack of a sense of personal growth or change after doing the course. Take the following examples from pupils from school 3 all taken after the course finished:

> Pupil 7: 'I don't really get many experiences in there. It's just been normal. Just normal routine. I start thinking about it and then I zone off and then I come back to it again and zone off, so it's just there, I don't really have any experiences of it… it's just doing the routine I guess. I can't really like it or dislike it, it's just normal I guess. It's always the same process. The experiences don't change between each week, they sort of just stay the same. I don't even know what my experience is. I don't really feel anything. I just go through the motions I guess.
>
> Pupil 8: 'I don't really use any of the things (practices). I wouldn't say I've changed at all since we started it.
>
> Pupil 9: I don't think I've changed either. It's not a life changing thing being able to drop your focus into your feet. So it's kind of like, 'I can do this' but it hasn't changed my life.' [FG, school 3, pupils 7, 8 and 9, all male]

Whilst some participants reported no obvious benefits, a greater proportion described a mixture or positive and less positive effects, such as Pupil 8 from school 1, or larger positive effects – for example, many pupils found it beneficial to help to be aware of and modify internal states during periods of stress and anxiety, for example before performances. These more positive experiences and practical uses for the .b exercises are explored in more detail in subsequent papers.

4.1.4 Subordinate theme: Awkwardness

Pupils described feeling awkwardness as a result of doing practices. The first type of awkwardness was described by Pupil 7 from school 1 as resulting from the experience of silence:

> 'I don't like silence. I feel like it's awkward. So when it's like that and we just have to think, I fidget a lot and I just can't concentrate'. [FG1, school 1, Pupil 7, female]

Teachers from school 2 similarly reasoned that the nature of some practices asking pupils to sit there with eyes shut made the pupils feel uncomfortable. Pupils also described awkwardness stemming from doing the practices with other pupils. For example, Pupils 1, 5 and 6 from school 2 described

feeling other people watching them during the practices as a cause of awkwardness, as well as activities like lying on the floor. Pupil 5 and 6 mentioned trust as a component of this:

> 'It's about trust. That's my thing… it's just like doing anything, I feel so awkward.' [FG1, school 2, Pupil 5, male]

Pupil 6 related her diagnosis of Asperger's Syndrome to the experience of profuse mind wandering and also to feelings of awkwardness,

> 'Because I'm really awkward, I'm so socially awkward and I don't know if that's just me or it's part of my Asperger's, or it could be anything.' [FG1, school 2, Pupil 6, female]

Pupil 2 from school 2 was able to relate a sense of awkwardness as stemming from being in the class with a close friend:

> 'For me, I think if you [referring to friend present in interview] weren't there it would have been a lot easier, because we're seen as… the teachers think we're quite funny. Because we're really good friends, obviously we see each other quite a lot and we laugh about everything, and I think that's why.' [FG1, school 2, pupil 2, female]

Pupil 2 seemed to infer that because of the nature of the .b class, she was seeing a different side to her friend, and indeed allowing her friend and the teachers to see a different side of her – rather than being seen as 'funny', she was perhaps exploring other parts of who she was, causing her to feel awkward.

Pupils in school 2 also described having the teachers present as a source of awkwardness. As pupil 2 explained:

> 'It's teachers that we have a couple of times a week and then you have to sit in silence and shut your eyes with them. It's a bit weird.' [FG1, school 2, pupil 2, female]

This was reflected in notes taken during various lessons in school 2 - pupils were noted to be laughing frequently at content, giggling, calling out things like 'so weird', looking around the room and were also guarded in their personality and not very open.

4.1.5 Subordinate theme: Weird or uncomfortable sensations

A number of pupils described weird or uncomfortable sensations, which were located in a number of places in their body. These locations were the hands, around breathing, in the feet and legs, when closing eyes, and in the body.

Teachers from school 2 described Pupil 7 having difficulty with closing her eyes:

> '[She] struggled with the practices. Yes, she did. She struggled with practices, you know, she's not comfortable closing her eyes, she didn't do a Beditation on the floor, she was uncomfortable with that'. [TI, school 2]

Pupil 7 was noted to have difficulties occurring in her home life, although what impact that may have had on how she struggled with some practices is unclear. Pupil 7 dropped out of the course mid-way.

Pupil 2 from school 2 described how she felt an uncomfortable sensation located in her body:

> 'I don't know. Things like that made me cringe. In like, in my body – I have to move. I can't focus on it.' [FG2, school 2, pupil 2, female]

Pupils described pins and needles in various parts of their body, especially hands and feet, as exampled by Pupil 1 from school 1:

> 'I noticed how my feet felt, it didn't really feel right, how I could feel like the floor through my shoe and then feel the fizzing in my toes… it put me off my tasks.' [FG1, school 1, pupil 1, female]

Pupils did seem to describe being unsure if they were doing practices correctly and or they were supposed to be feeling these sensations – see section 4.2.3 'Degree of Mastery' below for more analysis.

To summarise, pupils described feeling awkward during the program, and this seemed to stem from the nature of the practice, such as being silent, as well as the presence of other pupils and teachers.

4.1.6 Subordinate theme: Difficulty with certain practices

Some difficult and challenging experiences, such as maintaining focus of attention, are recognised to occur in adult MBI's, and are an accepted part of the practice. Not surprisingly then, a number of pupils described having difficulty maintaining their focus of attention. This was eloquently put by Pupil 10 from school 3:

> 'There was one time we had to focus on our breathing. I remember, a fan door or a car door being shut and somehow I was immediately drawn to that. And then that led to another thing, so it got me a bit of time to get back, the way I'm meant to be focusing on your legs or your feet or your hands.' [FG, school 3, pupil 10, male]

This type of difficulty was common among pupils. In a similar way, some pupils found that they were worrying about other pupil's experiences. For example, Pupil 1 from school 1 was able to explain how he wondered if he was doing the activity correctly, and whether other people were having similar experiences to him:

> 'At the start, I think I was put, put in my own bubble, but probably still thinking 'Am doing it right?'… I looked around – 'Is everyone closing their eyes?' – And whether I was doing it wrong, or do I need to close my eyes… is everyone got their eyes open?' [II, school 1, pupil 1, male]

Similarly, Pupil 4 from school 1 explained how pupils may be worried about what others think of them when doing practices:

> 'I think everyone was quite uncomfortable the first couple of lessons, because like I was thinking it as well, like the idea of doing a .b anywhere, like even in the middle of the corridors, like what would other people think of you, because you'd look a bit silly'. [FG2, school 1, pupil 4, female]

Other pupils had difficulty with other exercises. Pupil 20 from school 1, for example, had difficulty with the mindful walking practice:

> ‘Coming back to the walking one, I found it a bit tricky to walk after doing that, because normally you just naturally walk and not think about it, but when you like really think about it mindfully, it’s like ’One foot forward’, you’ve got to like rotate your heel in, and it’s kind of tricky because you’re thinking about other things you actually do to walk and it’s quite strange, because then you find it a bit tricky because you’re trying to think about what your body and your legs are actually doing, but it’s just too much’. [FG 2, school 1, pupil 20, female]

Some practices seemed to be difficult for pupils because of the focus on sensitive or vulnerable parts of the body. The following excerpt from school 2’s classroom notes is a good example of this:

> ‘I noticed [Teacher’s] hand was around her neck as she was reading this to the pupils, then it would shift to her mouth. Some of the pupils were giggling. ‘Notice what it is like from the inside’ [said Teacher]. Breathing – the feeling in the chest and belly was noticed. Pupils were looking around the room now, eyes visibly opened, looking behind them. Some were flicking through pieces of paper on the table. Some were laughing.’ [ON, school 2, week 3]

From this example it appears that the vulnerability in the teacher was reflected in the pupils, who had difficulty with this practice. They weren’t able to stay present with those vulnerable places in the body – instead, they were hardly participating in the practice at all.

Some pupils also found some practices physically difficult – take the following example from pupils in school 1 and 3 respectively:

> ‘I didn’t like the part when you just have to stand up. I like lean and then Miss tells you to step away from the chair and I found it really hard and my legs start to hurt and then I slouch and everything.’ [FG1, pupil 22, female, school 1]

> ‘He told us to stay in one place and try to not move your hands or move any part of your body…it felt a bit creaky… so if you moved your hands or feet or something like that, it felt like you couldn’t really adjust your hand very much. I didn’t find it pleasant.’ [FG, school 3, pupil 19, male]

To summarise, pupils found some practices, such as maintaining a focus of attention, mindfully walking, or physical postures difficult. In a similar way, other pupils found it difficult to focus on a task and instead were worrying about what other people would think of them. These could all be considered an acceptable part of the learning experience of practicing mindfulness, although the accepted presence of these difficulties may not have been adequately explained to the pupils, which

in many cases lead to the pupils wondering if they were doing the practices rightly or wrongly. The difficulty pupils encountered in focusing on sensitive and vulnerable parts of the body needs careful consideration and support in the school classroom context – while it may not necessarily be a bad thing for pupils to 'tune in' to sensitive parts of their body in the context of peers, thereby potentially letting down some psychological defences and learning to be more present in the context of others, a consideration needs to be given to the appropriateness of doing such a sensitive exercise in a public place, especially given the difficulty that some pupils, given their unknown backgrounds, may have with this. The level of support for any difficulties that may arise from teachers is also an issue, which is highlighted further in the teacher management of difficulties section.

4.2 Superordinate theme: Pupil context

As explored above, difficult and challenging experiences often were accompanied by a particular interpretation of the course content. These interpretations, including how they may relate to the actual content delivered, are explored in more detail in this section.

4.2.1 Subordinate theme: Pupil interpretation and misinterpretation

As discussed to some degree already, the way pupils may have interpreted various teaching points had the potential to impact their phenomenological experience.

Firstly, some pupils had heard of mindfulness or meditation before, and had preconceived ideas about what it was or was not. This in turn may have influenced their interpretation of some of the lessons, which may have impacted on their phenomenological experience. For example, Pupil 11 and 12 from school 3 had related meditation to 'sitting down and doing nothing' and 'inner peace, calming yourself, and relieving stress'. This idea that meditation was more about positive psychology may have influenced subtle interpretations of certain core themes in the curriculum content, such as the thought bus exercise.

Some pupils had also learnt a different mindfulness curriculum at previous schools – Pupil 18 from school 1 was able to articulate this:

> 'I thought it was a bit confusing, because I thought mindfulness was different, because I did it at primary and I didn't know what .b actually meant, so I thought it was a bit confusing, because I didn't know that you could do a .b mindfulness. [Before] We had to picture a beach, and in the lesson we do now we can do practicals, like breathing and things like that. So it's quite different.' [FG1, school 1, pupil 18, female]

Pupil 18 described this as 'confusing', which may have impacted on how she engaged with and experienced the lesson.

Pupils also described not really knowing why they were doing the .b course. Pupil 14 from school 1 explained:

> 'So the whole thing at first, doing the meditating instead of doing our regular class, 'Why are we doing this?' It just all seemed weird and uncomfortable to do at the time… I think if we were told a little bit more about it before we started, I think it would have been all okay to do it'. [FG 2, school 1, pupil 14, male]

A similar example from pupils in school 3:

> 'Pupil 13: I don't think he said anything about why we're doing it. He just said we're doing this…
>
> Pupil 8: Sort of made us, forced us.' [FG, school 3, pupil 13 and 8, both male]

Pupil 11 from school 1, who was described above as having an increased awareness or prevalence of negative thoughts, indicated that she interpreted .b as 'ways of calming ourselves down' after initially describing her life as having 'a weight of stress' due to worrying about things like exams and making new friends at school.

This unclear sense of purpose for some pupils, perhaps coupled with preconceived ideas, may have contributed to how pupils interpreted some of the teaching points of the course, and impacted on their experience. For instance, Pupil 3 from school 2, who described .b as asking her to calm down,

may have interpreted it explicitly in this way from the teaching itself, or from some preconceived ideas she may have had, like the above pupils from school 3, who already had conceived mindfulness as 'calming yourself'.

Next, pupils who interpreted practices to be about blocking or ignoring bad thoughts, or focussing only on good thoughts, may have been more likely to experience increased negative thinking, or experience judgment, as previously described. This is consistent with existing psychological research which highlights the known paradoxical effects of thought suppression, in that 'not' thinking about something can make that phenomena present in greater amounts in one's consciousness. Even though this point was in fact a lesson of the .b program, this point seems to have either not been reinforced enough by the curriculum, or its meaning may have been lost on some pupils through its dilution with other course content which wasn't as explicitly non-judgmental in its orientation.

Subtle ways in which pupils could vary in their interpretation of course content can be illustrated by the following examples:

The first example comes from an exchange between the teacher and pupils of school 3, where the teacher was attempting to make the point that shifting attention away from rumination can sometimes help one to become 'unstuck' from thinking and bring a sense of psychological movement and growth. The teacher told a story about a boy he had previously taught, who at the time was suffering from negative ruminating thoughts, as a close family member was dying. The teacher explained how he told the child to 'just notice (the thoughts) next time' rather than getting so caught up in it, to which, some time later, the boy returned to the teacher and told him that the practice had really helped him. However, later in the lesson, when the teacher asked the pupils what they could do about an email that they are worried about, a pupil, in rather pugnant fashion, replied 'Delete the email'. In the second class at school 3, the teacher repeated the story, and asked the same question, to which another pupil almost identically sardonically answered 'Do something about it'. Later, that same pupil wrote in their diary:

> ‘Mindfulness seems to be about ‘dealing with negative emotions’. However, I think a more effective approach would be to actually deal with the problem, instead of ‘meditating’ in a dark room. Mindfulness may help some people ‘deal with their emotions’ but in my opinion it is ineffective – it being a placebo effect that may relieve ‘symptoms’ of a problem, instead of actually solving the problem, which would allow the symptoms to disappear completely.’ [DE, school 3, Pupil 7, week 2]

He also wrote in his diary at a later stage of the course:

> ‘If you don’t think about your problems, how are you going to solve them?’ [DE, school 3, Pupil 7, week 4]

This example nicely illustrated how at least two pupils in this session interpreted the meaning of the story as to block out or ignore a bad or difficult thought, even though the pupil in the story clearly benefited from shifting his attention away from the worry. The pupil’s reflection, that shifting attention may not actually help solve the underlying problem, was similarly expressed by pupil 8 from school one.

A similar scenario emerged from school 2 in the following example, taken from in class observation notes:

> ‘During a class discussion, Pupil 7 asked the following question after doing a practice: ‘I don’t understand why your mind is not supposed to think about certain things – like it is good to think about certain things that are happening in your life’. The teacher quickly answered the question, as it was the end of the lesson – ‘It gets better with practice’. [ON, school 2, week 3]

This is also an example of how teacher context, such as rushing and not exploring experience adequately, can impact on pupil experience. Teacher context is explored in more detail later on.

Similar to the pupil in school 3, this pupil also perceived the practice as ‘not thinking about certain things’. The teacher wasn’t able to explore meaning and context with this pupil further, perhaps due to time as it was the end of the lesson. As stated earlier, this pupil left the course before interviews occurred so her understanding of this could not be explored further with her.

As alluded to earlier, pupils from school 1 seemed to have interpreted some instructions, particularly the thought bus exercise, as having a primary goal of not getting carried away on bad thoughts, and instead to focus on positive thoughts. The following passage illustrates Pupil 8 explaining how she disagreed with this logic:

> 'Isn't it like all of your thoughts are carrying you away somehow, even a good thought? Say you're having a really good thought, like we won the football match, it could take you onto a bad thought as well, like we could have got loads more goals if we'd tried better, we could have got less injuries if we'd tried better and stuff like that. So it's like all thought buses, whether you go on the good or the bad, the bad can turn into the good and the good can turn into the bad, so all of your thoughts would need to stop if you're going to do like what Miss says, you'd need to stop thinking altogether, because everything can be dangerous, no matter what you think.' [II, school 1, pupil 8, female]

Here, Pupil 8 insightfully describes that 'what Miss says' – to stop thinking bad thoughts and instead to think good thoughts – would be impossible, because even good thoughts can turn into bad thoughts. Hence, she concluded that you would have to stop thinking completely in order to not think anything bad.

She also critiqued the intention or desired outcome of the thought bus exercise of lesson 7, which she interpreted as blocking or not thinking about bad thoughts:

> 'No matter what it's always going to be there in your head, and if you don't think about it now, what's going to stop it coming up more seriously in the future?' [II, school 1, Pupil 8, female]

Pupil 8 was the pupil who felt that .b was making her negative emotions worse – indeed, she described a strong sense of sadness about her Nan when doing .b at home. The fact that she didn't raise this in class, or that it wasn't mentioned as a possible effect, is an important point worth consideration. Like other pupils, she seemed to struggle with these difficulties in isolation. Her strong sense of being judged and invalidated potentially stemmed from how she interpreted the nature of some lessons – to block or ignore thoughts or feelings, or indeed to focus on positives. If her Nan had just died, and that was all she was thinking about at home when doing a practice, it

could be easy to understand why she may feel judged when asked to focus on positive thoughts instead of having her feelings heard and validated – what she described as the school asking her to 'grow up' and 'not be a child'.

Pupil 8 seemed to realise this herself, when she gave a brief critique of the curriculum:

> 'No matter what it's [the difficult thoughts] always going to be there in your head, and if you don't think about it now, what's going to stop it coming up more seriously in the future? Say I block a thought about the dreams, what happens if they get worse and worse and I keep on blocking them, and then when I try to get a job I turn paranoid, like I keep on seeing it because I haven't been able to talk about it. That would ruin my life, because if I don't sort it out now then it may lead to something way worse in the future.' [II, school 1, Pupil 8, female]

This is an example of a very similar interpretation to the first two examples pupils from school 2 and 3 above.

Pupil 11 from school 1 is another example of how a fundamental teaching point such as the thought bus exercise could be easily misunderstood. Pupil 11 described the teacher as instructing her to notice the 'good thoughts' and then not to 'hop onto the thought bus' – therefore seemingly interpreting the thought bus as only incorporating or referring to 'bad' thoughts. She described 'being aware of what's happening' to mean 'think about the good things'. Pupil 11 didn't seem to interpret the lesson as about 'watching' or 'observing' all thoughts as 'just thoughts' (and hence aid in cultivation of pure or choice less awareness), but instead that she should intentionally not think about bad thoughts, and instead turn her attention towards good thoughts, which she wasn't able to do. She subsequently seemed to become trapped in this 'negative' thought-cycle described in the excerpt in the first section of this chapter.

Pupil 7 from school 1 is another example of a pupil who described an idea that rather than the thought bus exercise being about watching or observing all thoughts as though they were buses going past, the purpose of the exercise was to block out certain thought buses. Similarly, Pupil 24

from school 1 described needing to look on the bright side of things and notice good rather than bad, and also to ignore bad stuff and notice the good.

Some pupils described not understanding certain teaching points, while others described not finding the teaching points relevant or useful to them. Take the following example from Pupil 14 in school 3:

> 'I think a couple of the animations that we watched, because you'd watch them and then our teacher would tell us, would ask us that they mean and what's happening in them, and often at times I wouldn't know what, I get the general idea but then I wouldn't get the actual point that was being made.' [FG, school 3, pupil 14, male]

Pupil 14 described not understanding the point that was being made, but he didn't ask for clarification or further understanding. This may have impacted on his interpretation and experience of the course.

4.2.2 Subordinate theme: Classroom contexts

The second of the subordinate themes under 'Pupil contexts' is the environment and other contexts of the class where the lessons were taking place. The first of these was the level of attendance of certain pupils, as the level of attendance during the course may have impacted on a given pupil's perceptions of content and overall understanding and experience during the program. For instance, Pupil 14 from school 1 described the following:

> 'I haven't been able to do it, because I haven't been here for most of the lessons, so I haven't been able to know what the home practices are. I feel left out, because everyone else knows all these home practices and I only know .b.' [FG, school 3, pupil 14, male]

This pupil described both feeling left out as well as not knowing certain practices. Pupil 8 from school 1 had a similar experience:

> 'On week one I wasn't there because I didn't even know we were doing .b. The next week [my mates] were all on about .b but I didn't know what it was. It kept happening every time I missed a group.' [FG2, school 1, pupil 8, female]

Pupil 8 had described struggling at home on her own with difficult emotions, and also feeling judged and invalidated, and her absence and its' consequences may help to explain some of these difficulties – perhaps her interpretation of some of the content differed from others due to her absence during potential key lessons.

Another classroom contextual factor that may have influenced pupil experience was the level of engagement of pupils during the lessons. Pupils were often observed to not be engaging fully with the lessons – for instance, take the following excerpt from classroom observation notes from school 2:

> 'Pupils were looking around the room now, eyes visibly opened, looking behind them. Some were flicking through pieces of paper on the table. Some were laughing.' [ON, school 2, lesson 3]

Pupils also described 'zoning out' during lessons and not really attempting the practices, as Pupil 15 in school 3 described:

> 'I just look out the window and think about other things mostly. I normally don't always focus in on what he's talking about. I zone out a bit. That's quite nice to zone out for ten, fifteen minutes.' [FG, school 3, pupil 15, male]

It is important to note here that all three teachers were rated competent in their teaching ability and so these 'absences' of engagements could be considered a typical part of the practice of mindfulness, in that pupils are often 'allowed' to be just what they are in that moment.

Additionally, whether or not pupils asked for help is a possible determinant of how they interpreted or understood certain teaching points. For example, pupil 16 in school 3 was asked whether or not he felt he could say to the teacher that he's not doing it right, to which he responded 'No, not really. I don't like to put my hand up much. I just kept it to myself'. Other pupils described similar examples, such as Pupil 1 from school 1:

> ‘I found it quite difficult just holding my breath for long then breathing it all out. I [didn’t talk to Miss], I just kept in my mind bubble and carried on.’ [FG1, school 1, pupil 1, male]

4.2.3 Subordinate theme: Degree of mastery

Pupil’s degree or sense of mastery of practices may have impacted on their experience and overall outcomes. Part of this may have been influenced by attendance and the perceived difficulty of the practices, as discussed above. Part of this may also be contributed to by the retention of knowledge or understanding of a practice. This is highlighted by Pupil 17 from school 3:

> ‘They (the practices) were all sort of blurred in my mind now because it’s like they all merged into one main theme which was just focusing on one thing then the next. But normally when I come out of a practical or come out of the lesson, I forget everything that I’ve just done.’ [FG, school 3, pupil 17, male]

This may then tie in with the degree of homework practice engaged with by pupils – pupils often reported not doing homework. The following is an example from Pupil 8, school 3:

> ‘The prep is [to] practice some of this stuff. He gives that every week, but I don’t really do it.’ [FG, school 3, Pupil 8, male]

Other pupils mentioned that the importance of other homework took precedence, while others stated they just forgot or didn’t want to. The amount of lesson time devoted to experiential practice of mindfulness and the length of the course may also impact on the sense of mastery or competency experienced by pupils.

4.2.4 Subordinate theme: Pupil factors

Specific pupil factors such as age, neurodevelopmental disorders, home life, and behaviour may all have been likely to influence pupil experience of .b. Teacher 2a from school 2 recounted how age was an important factor in determining how pupils engaged with the lessons:

> ‘I think also, with the year 7’s, because some of the sessions are quite teacher led and there can be quite a bit of theory into it, I think with the year 7’s they didn’t cope so well with that. I think the year 11’s, as far as I could see, handled that much better’. [TI, school 2]

These teachers also spoke about pupil behaviour being an important factor regarding how pupils engaged with and experienced the program. The aforementioned Pupil 6 from school 2 has been mentioned as finding the course difficult, due to the degree of mind wandering experienced, as well as the awkwardness of doing the practices in a social context, which she considered might be exacerbated by her Asperger’s syndrome. Similarly, Pupil 22 from school 1, who had Attention Deficit Hyperactivity Disorder (ADHD), described the following situation:

> ‘Sometimes, I could be going to say something and then obviously forget what I’m going to say, and then do a .b, which will then forget what I’m doing and just make it worse, and then, if I don’t do a .b, it just doesn’t get worse, but makes me want to do another .b, so just cycle, repeat, and I can’t help doing a .b, which just makes it worse.’ [FG 2, school 1, Pupil 22, male]

He seemed to describe being stuck in a difficult cycle with his attention, which may be due to his ADHD – this can be compared to beneficial effects of a specialised mindfulness program used to treat ADHD in the literature, which may have tailor made instructions of practices specifically designed to manage and support ADHD [116].

The pupil’s home life and family context may also have implications on their experience. Pupil 8 from school 1, as already alluded to, is an example of this, and she was already struggling with the recent death of her grandmother, as well as arguments between her mother and father, and subsequently experiences feelings of sadness and in particular being unsupported with this. Pupil 3 from school 2 described how others would perceive her to have a bad life, both at school and at home, because she was failing her GCSE’s and she was not talking to her family. She also described that she ‘didn’t care’ that she was going to fail exams, and that despite others possibly considering her to have a bad life, she is making the most out of it. This existing vulnerability may make it more likely for these

pupils to experience difficult and challenging emotions when participating in a practice, as well as an increased potential to feel judged by certain elements of the curriculum.

4.3 Superordinate theme: Teacher contexts

Since teachers were a medium between the pupils and the content of the curriculum, teacher-related factors which may have contributed to pupil's experiences of difficulty or challenge are explored here.

4.3.1 Subordinate theme: Intention

The intention schools had for delivering the .b program to their pupils differed to some degree from what the pupils believed it to be. In general, while the pupils either didn't know or vaguely sensed it had something to do with calming, relaxation or 'reducing stress', the teachers had the perspective that it was about addressing mental health problems in their pupils. However, the exact similarities and differences in the understanding of these terms between teachers and pupils was lacking between the two parties. Both teachers from school 1 and school 3 admitted that they didn't know what the pupils' understanding was concerning why they were doing the course, as this example from school 1's teacher demonstrates:

> 'I don't think they probably realise. I reckon we need to do an audit on it to see what they do. I don't think we've ever asked them, what is their awareness of it and things.' [TI, school 1]

Teacher 1 had been explaining that the school was concerned about the rate of self-harming, cutting, and general levels of anger in the pupil group, and they had brought in the program to help address these things. Teacher 1 also described .b as 'getting more instant help and instant response than we can do with the students while they are waiting for their CAMHS referrals.' She went on to describe .b as 'mental health first aid' and that teachers in general were not able to cope fully with the mental health problems they were presented with. This was reinforced by Teacher 2a from school 2, who acknowledged the pressure they felt in order to help with these problems:

> 'External agencies are massively overwhelmed… I think as a country we have completely underestimated the size of this problem of mental health in young people. I think that

> mindfulness, while it's still important to work in conjunction with those things, it's one to one support that they need, because those agencies are so overwhelmed.' [TI, school 2]

The difference in intention – from a 'mental health' point of view by the teachers, combined with a lack of understanding of the pupil's perspectives, and an unclear sense by the pupils themselves – may have contributed to the pupil's overall experience of the program. In particular, this focus on mental health, although not explicit, may have come across to pupils in an implicit way, contributing to their interpretations of needing to block, repress, ignore, 'forget about' or 'shift away from' negative or bad thoughts, and instead focus on positive thoughts. This may have also contributed to the perceived judgment by some pupils – for example, the intention from the teacher to 'fix' or 'bandaid' perceived mental health problems, could explain why some pupils, such as Pupil 8 from school 1 or Pupil 3 from school 2, perceived the course to be invalidating and judgmental. It could also contribute to some pupils having an increased rate of negative thoughts, as implicit messaging such as bandaiding mental health problems, or an undercurrent of pressure passed on from teachers to pupils, may trigger or worry particular pupils about particular thoughts they were having, or indeed if they were doing it 'correctly' if indeed negative thoughts increased, as in Pupil 11 from school 1.

4.3.2 Subordinate theme: Managing difficulties

Pupils were not observed to ask for help in class – none of the pupils with difficult experiences described in the first section had mentioned them to their teacher in class. This may have been because specific difficulties were not mentioned to them as possible outcomes, and nor were they observed to be explicitly encouraged to come forward and share these difficulties. The way that teachers conceptualised and managed difficulties may have impacted on the phenomenological experience of pupils.

The teacher from school 3, who was a very experienced .b teacher, was clearly aware that 'people definitely find it difficult', and was able to give examples from his prior teaching experience about

how he managed difficulties. He was able to acknowledge that pupils sometimes struggled with activities like concentrating on breathing, clapping hands, and having difficulties when their minds start to settle more. Over time, this teacher had developed a number of techniques to help manage these difficulties. For example, he explicitly asked pupils after the exercises if anyone felt worse, so that he could ask them to stay behind and talk to them. He was also aware of what may be happening in each pupil's life – if he was concerned about a particular pupil, he would talk to them beforehand, keep a close eye on them during the lesson, and then 'check in' with them after the lesson. He also mentioned that pupils crying is not uncommon and usually requires having a chat after the lesson to help address the difficulties – and he 'is sure to give a proviso that pupils did not have to practice if they feel uncomfortable'.

This differed from the teachers from school 1 and 2, who had much less experience, despite also being rated as competent teachers. The teacher from school 1 only had one example of how she managed difficulty, which was when a pupil instantly opened their eyes during a 'looking at difficulty' session, to which the teacher gave a concerned look in their direction, as if to say 'are you OK?' She also described 10 minute chats that she would have with pupils in the corridor of the school about how they were going with .b, but that these were opportunistic in nature and not specifically about difficulties. This teacher also acknowledged that pupils didn't come and tell her difficulties because of a lack of time available:

> 'I don't have a .b moment now to come and talk to you about it. We do miss a lot of stuff. Because you're teaching them and it's in, out, in, out, they don't have the chance to say 'I find something at home really hard'… I think you miss some of that as a teacher.' [TI, school 1]

This could also be a reflection of the time pressures that teachers in many state schools commonly operate in.

The teachers from school 2 said they were getting better at managing difficulties – for example, when a pupil came to them after a class to discuss difficulties, rather than getting caught up in

solving the problem, they were able to reflectively listen. They also gave the example of Pupil 7, who had dropped out of the class due to safeguarding concerns and things happening at home, who they did not pressure to return. The teachers from school 1 and 2 seemed to be lacking in their knowledge of potential difficulties and how to manage them compared to the teacher from school 3, and this is possibly due to the degree of experience or the degree of training, or indeed a lack of knowledge or awareness in general about difficulties and challenges in meditation informed curricula and the .b program more specifically.

4.3.3 Subordinate theme: Delivery

The way in which content was delivered during a lesson had the potential to impact upon how pupils experienced the course, which in turn could have impacted on their phenomenological experience. Firstly, lessons were frequently rushed. Rushing the lesson may have had implications for the quality and accuracy of the content as transmitted to pupils, as well as allowing less time to explore experience and correct mistakes in conceptualisations. This was highlighted by Teacher 2b from school 2:

> 'Just feeling like it was all quite rushed sometimes, and maybe… I don't feel like… there was a few times when I just felt like 'I'm not explaining this in the way that I want to because I know that I need to get onto the practice in two minutes, because we have to get out of here in five.' [TI, school 2]

Teachers also commonly skipped and changed the curriculum content of their own volition, often due to a lack of time available, as highlighted by Teacher 2b from school 2:

> 'When we had an hour and 45 minutes, I would do the entire booklet, and you have so much time to talk. Whereas this, you had to go back and just look at the pages with the little man in the corner, and that was the only ones you could do, and then you were very aware that actually there were really important things in between that, that were quite crucial to the explanation, but you didn't have time to do that, you only had time to do the bits that it says you have to do, and if we taught a normal lesson like than then the normal lesson might not make very much sense because you're kind of cutting out the development part I suppose.' [TI, school 2]

Teacher confidence in the material they were teaching may also have affected pupil experience, for example through being able to discuss, clarify and explore material. Teacher 2b from school 2 gave the following example:

> 'Oh, the first time we did it, I mean, it was terrifying, because it's really hard, and even now I still hold the booklets, because there are still things that… it's because we're not doing it often enough I suppose, that you still have to kind of read bits off, like quotes and things like that, which are really important and I want to make sure that you get it right.' [TI, school 2]

Subtle variations in how content was delivered between schools may also have affected pupil's interpretations. For example, a teaching point from a lesson in school 1 was explained as 'Our minds *always* go to what's wrong and catastrophizing' where in school 2 the same teaching point was worded as 'Brains can *often* think of the negative'. It is possible that, in school 1, suggesting that minds *always* go to negatives may have reinforced to pupils that there is something wrong with their own minds, and therefore they require 'fixing', perhaps leading to an increased rate of, or more negative interpretation of, difficult thoughts through indirect suggestion. The statement in school 2 was perhaps a more balanced approach, as brains can often think of 'worse case scenarios', but can often think of good things and positive outcomes too. The use of personal stories and anecdotes by teachers also had the potential to introduce sources of error. Teachers were often observed to use personal stories, perhaps in an effort to engage pupils on a more personal level. However, this, combined with lack of confidence in the source material, had the potential to reduce the clarity of the teaching message.

4.3.4 Subordinate theme: Change in role identity

The relatively less experienced teachers from school 1 and 2 described feeling a significant shift in their role identity as a teacher during the program. Teacher 1 described a change in role identity as '.b mode vs regular mode.' Regular mode was noted to consist of challenging the pupils and pushing them to extend their knowledge, whereas .b mode was noted to consist more of listening, reflecting and not 'pushing' the students. Teacher 1 also found it difficult to switch between these two modes

as she changed from one lesson type to another. Teacher 1 usually lead practices with her eyes open, standing in front of the class. She didn't seem to leave the 'teacher' role as much as teachers from school 2, who often lead practices sitting on a chair in front of the pupils – sitting at the pupil's level – and who often had either their eyes closed or their head downcast in a position of vulnerability and reduced power. This could have contributed to the frequent giggling, laughing and inattention demonstrated by the pupils in school 2. Teacher 3 seemed to strike a good balance by sitting on a desk – closer to the level of the pupils but not quite leaving the teacher role altogether.

An extension of this change in role identity is the notion of whether the .b teacher was there to correct mistakes in pupil interpretation of the lesson, or whether they were there to simply validate any given pupil experience. An example of this comes from an in-class observation in school 1:

> 'Pupils were asked to give an answer to the question 'A person can't sleep at night, what advice would you give?' To which two of the answers were 'forget about it' and 'think happy thoughts'. [ON, school 1, week 4]

These answers were not consistent with course teachings, particularly in the context of mindfulness being defined as non-judgmental acceptance or observation (being present with) one's own thinking or experience. Yet, these answers were quickly accepted and validated as Teacher 1 moved from pupil to pupil at rapid fire pace. This is not a judgment on Teacher 1, but an example of the tension present between needing to validate any given pupil's experience and also needing to accurately teach a mindfulness curriculum within the time constraints of a regular school classroom. This can also be an example of where incorrect answers that were not explored adequately may influence the interpretations for other pupils in the class.

An extension of this tension in role identity is the place of discipline in the .b classroom. Teacher 3 spoke of needing to balance the softer experiential side of mindfulness practice with discipline and maintaining control of the class:

> ‘You have to know your school sanctions and you have to know when to flip into strict mode’. [TI, school 3]

Teacher 2b also noted a balance between ‘being authoritarian’ and ‘passing on knowledge’:

> ‘As a regular teacher I’m going in there as an authoritarian as well as passing on knowledge, whereas with the mindfulness I don’t feel like I’m going in there as any form of authoritarian at all. Maybe you’re going at it from more of a caring point of view, rather than a teacher [where it’s] much more about control… controlling what’s going on in the class. It seems a bit of a contradiction to be teaching mindfulness while at the same time losing your temper…you were really aware of the fact that that was not the right environment to do that, but at the same time that was really hard’. [TI, school 2]

This teacher seemed to be highlighting the difficulty in balancing unconditional (non judgmental) validation of experience with needing to occasionally keep a class manageable from a behavioural perspective, and how these may often be in conflict.

Mindfulness teaching was also noted to need an awareness of one’s own internal state at the same time as teaching the course content. This was highlighted by Teacher 2a:

> ‘I find as well the difference between the two, because you’re teaching mindfulness you’re very conscious of yourself about practicing your 50/50 attention… you’re aware of when you’re becoming stressed.’ [TI, school 2]

Teacher 2b also noted a difference in role between teaching a compulsory mindfulness class, compared with a class that was voluntary:

> ‘We were fighting them… having to sell it to them. They didn’t really want to do it. They didn’t take it seriously. It was very difficult to know how to be a mindfulness teacher and a teacher… it was really awkward because you didn’t want to shout, you didn’t want to have a go at them because that’s not the environment we’re in, but at the same time, you had to eventually. ’ [TI, school 2]

Practices were also observed to occasionally be used as disciplinary tools by Teacher 1, as this in class observation demonstrates:

> ‘Sit up, no talking, everyone in their bubbles, it seems like everyone has forgot that recently.’ [ON, school 1, week 9]

The tension in role identity for .b teachers seemed to have implications for the teacher's responsibility to correct mistakes and provide adequate disciplining, both of which seemed to contribute to overall class climate and pupil experience of the .b program. Also important was whether or not pupils participated in the course on a voluntary, opt-in basis, or as part of normal school provision (an involuntary basis). The unclear role identity, or indeed the shift in role identity of the teacher, is also possibly a contributing factor to the awkwardness experienced by pupils, which is explored above in section 4.1.5. The use of mindfulness – through the language of .b – as a tool for discipline also seemingly contradicts the definition of mindfulness as 'non judgmental awareness' or simply 'being present with experience' and had the potential to confuse pupils further with regards to the desired intention of performing the practices.

4.4 Superordinate theme: The curriculum

Certain aspects of the curriculum had the potential to be related to difficult and challenging pupil experiences, both directly and through potentially causing contradictions and mixed messaging with other content. This in turn may have influenced misinterpretation and added to difficulty and challenge experienced by pupils.

4.4.1 Subordinate theme: Structure

The first factor that was highlighted by Teacher 1 was the amount of experiential practice compared to the amount of other content she had to cover:

> 'I think sometimes we go into a bit too much detail, that maybe we could do the practices and either spread it out or just change it somehow. Change it somehow to get rid of some of that. A little bit less content in general, more practical stuff.' [TI, school 1]

She said this was a reflection of pupils asking her for more practice at techniques, as they found them useful 'when they notice things are going out of kilter within themselves'. However, she reflected that she had to teach what was structured in each lesson and didn't feel comfortable deviating too much from that. She added that repeating the same practices over different weeks, to improve a sense of mastery, familiarity and skill, may also have been more useful:

> 'And even if you do FOFBOC more than once, beditation more than once, that would be I think more useful than perhaps as much detail as we do'. [TI, school 1]

A similar idea was highlighted by pupils from school 2:

> 'Pupil 1: Because even if we did like the same thing on both the days that we did it, I feel like… because then you get more practice and then you get more time on it as well. And like recapping the stuff you've done.
>
> Pupil 2, 3: Yeah.' [FG2, school 2, pupils 1, 2, 3, all female]

Teacher 1 also highlighted that pupils in her school were unable to access the internet because they did not have it at home, which impacted on their ability to practice at home. This may be a

significant issue in areas with higher levels of deprivation, which may exacerbate inequalities for the most vulnerable.

Another factor highlighted by some pupils was that the length of the course was too short, as indicated by the following pupil from school 3:

> 'I think my thoughts are very scattered. I think if we had a lot longer to do this course then it would obviously help more. I think it does help, but I think it's more time, more time would obviously help.' [FG, school 3, pupil 18, male]

Teacher 1 and 2b also highlighted how they thought some lessons were more important than others – for example, Teacher 1 said that lesson 7, about learning to watch thought traffic, was a 'cornerstone' lesson, and should have been at the start of the course. If this lesson was at the start, it may have helped to make the overall purpose of the curriculum clearer. For example, the emphasis throughout the course may then have been on being able to develop cultivation of the pure or choice less awareness by recognising *all* thoughts as simply thoughts, rather than having a perceived emphasis on ignoring or blocking 'bad' thoughts.

4.4.2 Subordinate theme: Content

It is also possible that certain content in the curriculum may have made pupils more likely to interpret a sense of needing to block certain thoughts, or to focus more on positive thoughts. For instance, the lesson on flow may have introduced confusion for pupils as it could have been perceived to be about finding a performance mindset; for example, when pupils in school 1 were asked during a lesson what 'flow' meant, they responded with answers like 'to not care about anything else' and 'when your performance is better'. This may have added to overall interpretations of the course as being about repressing or blocking bad thoughts in order to perform more 'positively'. There are a number of other examples of mixed messaging, which again had the potential to reinforce to pupils that mindfulness is about thinking positively and ignoring, blocking or invalidating 'bad' thoughts. For example, the content from lesson 9, observed in school 1, had an

animation play about focussing on positives and not negatives, and that mindfulness meant 'being present with your heart', which meant 'noticing the good things in every moment'.

This way of defining mindfulness may have been confusing for some pupils when compared to other lessons, and may have led to confusion concerning how the ideas of gratefulness, positivity and non-judgment may interact, especially when mindfulness was defined in the previous example as being 'grateful with your heart'. For example, compare this to a description of a practice in lesson 7 given by the teacher from school 3, where the focus was on receiving, observing, and being 'open':

> 'One thing that comes and goes is sound. Listen to sounds as they come and go. There is no need to label them or go off in the thinking stream, just receive, a bit like a microphone. Thoughts are the same, watch them as they arise and fall, just like sounds.' [ON, school 3, lesson 7]

Consider in addition the following excerpt from an in-class observation from school 2:

> (The animation slide continued): 'Autopilot is about missing the good and magnifying the bad.' As it spoke, [name] and [name] were playing games with each other's hands. 'You can sleep through life on autopilot' the presentation slide voice was saying. 'Mindfulness is being alive and noticing it. Connecting with each moment as it happens'. 'What advice did the slide give?' asked [teacher]. 'To focus on the good things' [answered a pupil].' [ON, school 2, week 5]

In this paragraph, the concept of autopilot is introduced as focussing too heavily on 'bad' thoughts, feelings and events in life. The presentation then continued that autopilot is instead about being 'asleep' through life (in contradiction to the aforementioned focussing too heavily on bad). Mindfulness was then introduced as the counter to being 'asleep'. The conclusion formed by the pupil was to 'focus on good things'. This is an example of how the conclusion formed by the pupil was one of focussing on positive things, which may have occurred due to the ambiguous and mixed nature of the teaching.

Similarly, consider the following excerpt from an in class observation note from school 1, when pupils were shown a video of a Holocaust survivor who had developed a very positive attitude towards life, by saying that she had learnt to look towards good things instead of bad:

> '[Teacher] then prompted more discussion by asking what (the woman from the presentation) meant by saying 'I know the bad things, but I look to the good'. Reponses: You only know good things if you know bad. Focus on positives and you can overcome negatives. Push bad things aside. Know that they're there, but not in your mind. If you focus on the negative, you will never see the positive. An animation now played about focussing on positives and not negatives.' [ON, school 1, week 9]

Even though the Holocaust survivor had stated that she *recognised* bad things but *chose* to focus on the good, pupils here seemed to completely miss the subtlety in this, and interpreted this in many different ways, for example 'pushing bad things aside' and 'overcoming negatives'. One could argue that there was the potential for more ambiguity to be introduced by this exercise than compared to the previous example from school 3, where pupils were encouraged to cultivate a particular type of non-judgmental awareness by being open and to receive all thoughts and phenomena, like a microphone.

4.5 Superordinate theme: School context

Pupils and teachers raised factors relating to how the course was integrated into the regular school context as important in affecting pupil experience.

4.5.1 Subordinate theme: Scheduling

The time period between lessons was highlighted as an important factor which may have influenced conceptualisation and experience. This is evidenced by Pupil 6 from school 2:

> 'Because we only did it like once a week and quite a few times we had to like miss weeks, I kind of forget, to even do it… I forgot about it.' [FG 2, school 2, pupil 6, female]

Lessons were commonly missed or shortened in school 2 due to double booking of the classroom and also exams taking place resulting in the .b classes being postponed. Teacher 1 also mentioned that if the lessons occurred too close to one another, for example on a Friday and then the following Tuesday, that it is not enough time for the pupils to absorb the previous content. Teacher 1 also commented how pupils were asking for .b to be a separate lesson rather than taking the place of a regular school lesson, so that they could have continuity in their practice.

4.5.2 Subordinate theme: Pupil group

Teacher 1 and Pupil 14 from school 1 both acknowledged that .b would be better if at least the whole year level did it, if not the whole school. Pupil 14 reasoned that this was because everyone would be used to it, which would help with reducing stigma and fear of harassment from doing practices in hallways of the school and in other classes. The teachers from school 2 also reasoned that when other members of the year level were playing sport when one particular class was doing .b, it made it particularly difficult for those pupils in the .b class to concentrate and engage with the learning. These teachers also commented on how the size of the pupil group being taught affected how they engage, 'Because you can focus down if you've only got a few, can't you' according to

Teacher 2a. Having more pupils in the class could have meant less time to clarify individual understanding and explore experience.

Furthermore, both Teacher 2a and 2b commented on the importance of whether a class was optional or voluntary. When comparing the year 11 class observed in this study, which was optional, to a year 7 class they had taught previously, which was compulsory, the main difference they identified was that they were 'fighting' the year 7's. They commented on how they were having to 'sell it' to the year 7's, particularly as they reasoned the year 7's didn't understand as much as the year 11's 'why they needed it'. This was also true because the year 11's were optional and had been chosen to participate particularly because they had been identified as having some mild degree of stress, like exam stress, and could therefore more easily justify or ration why they needed to do the course.

5. Discussion

SBI's are commonly implemented programs used with the intention of improving pupil wellbeing through both mental health promotion and reducing incidence of mental illness symptomatology. Meditation informed curricula, in particular mindfulness meditation informed curricula, are one example of these types of interventions, often delivered 'universally'. However, categorisation and conceptualisation of difficult and challenging experiences in SBI's are lacking, even though it is known that difficult and challenging experiences occur in adults undergoing similar psychological interventions – including MBI's – and that there is a lack of categorisation, conceptualisation and monitoring of these experiences in the adult population. This study sought to capture a range of pupil experiences – both positive and non-positive – reported during participation in a popular 10 week mindfulness informed program in the UK (the .b program), in order to better understand potential difficult and challenging experiences encountered by pupils. This may assist with understanding efficacy and safety criteria for both the .b program as well as other mindfulness informed curricula. Understanding difficult and challenging experiences and their contexts might also contribute to better understanding the effectiveness of other types of school based complex mental health interventions.

This project involved the study of four secondary school classes drawn from three schools in the UK. In total the experiences of 64 pupils and four teachers were included, through observations of each lessons of the 10 week .b program, data from pupil diaries, video recordings of lessons, and pupil interviews. These were analysed using thematic analysis and interpretive phenomenological analysis. Pupils did describe difficult and challenging experiences, and surrounding contexts such as the pupil's interpretation of lessons, the teachers' intentions, the content of the curriculum, and how these all may interact, were also identified. These will now be discussed in more detail.

5.1 Relationship to literature review

There were similarities noted in comparison to the previous qualitative studies of .b. Firstly, Kempson, who had used focus group interviews to qualitatively measure the effect of the 10 week .b program on 18 pupils, described a number of similarities [88]. Kempson found that pupils identified that the course was too short to fully understand the concepts and techniques taught in it, and that there was a lack of guidance on how to perform practices outside the classroom. He also described pupils feeling that the course lacked personal impact for them; practices being difficult to carry out; frustration that it wasn't working; and forgetting techniques. With regards to difficult and challenging phenomenological experiences, Kempson reported pupils feeling very self-conscious about how others would perceive them; having difficulty maintaining attention and being distracted by others; and pupils finding it hard because of not being in the 'right mind-set'. Although Kempson didn't describe difficult and challenging phenomenological experiences to the extent that this study does, it can be seen how many of these themes, which he described as 'barriers to effectiveness and engagement of mindfulness practice' fall under the 'contexts' surrounding the difficult and challenging experiences described in this study. McGeechan, who studied the qualitative effects of the .b program on pupils aged 13-15, didn't report any difficult or challenging phenomenological experiences, but did describe two interesting findings, which was that pupils felt like they had no choice but to take part in the program, and were also reluctant to discuss the program with others who weren't taking part. The pupils were taught the .b program specifically for the study, which was conducted as part of a larger service evaluation of mindfulness in school programs commissioned by a local authority, and although they attended schools where staff were already trained to teach the program, they were selected by school staff who felt like they had issues with behaviour and low academic achievement and were therefore 'targeted' in this respect. The fact that the pupils felt like they had no choice (and indeed did have no choice) to participate raises issues regarding the safety and efficacy of the program as highlighted by this study, particularly when pupils are being 'made' to participate in the program when there is a lack of knowledge regarding potential difficult and challenging experiences and how they may be adequately managed. The surrounding contexts for

the ‘behavioural difficulties’ in the study by McGeechan were not reported, but this study has highlighted that there are several contextual factors which may contribute to the overall phenomenological experience of pupils. Additionally, pupils with specific contexts, such as difficult home lives, may be more at risk of experiencing difficulty when undergoing the .b program, and this needs important consideration when considering curriculum content, framing, and management and mitigation of difficulties. McGeechan also found that pupils in their study were reluctant to discuss the program with others not taking part, and mentioned that this may be due to perceived ‘stigma’ since they were specifically targeted for this program. The present study has found that the ‘intention’ or motivation for why pupils are doing the program may play a role in the overall interpretation and experience – hence, in the case of McGeechan, pupils may have felt stigmatised and different to other pupils, and may have even viewed the program in a negative light because of this.

The present study also demonstrated similar findings to Cain, Kerrigan, Coholic and Tharaldsen, who all found that in that participants had difficulty with wandering minds and difficulty in general with some practices [80, 83, 89, 95]. Cain, who had measured the effect of a 10 minute meditation session on regular pupils over 9 consecutive days at school, had found that some pupils noticed that their minds tended to wander, and that this made one pupil feel stressed [80]. Pupils also reported difficult and challenging experiences in Cain’s study which were described as ‘reactions and urges contrary to the instructions given’. This may have been replicated by the current study, in that the psychoeducation components ‘around’ the actual experiential practice of mindfulness seemed to influence pupil’s interpretations of the exercise and subsequently their phenomenological experience. An example of this could be pupil 18 from school 1 who – whether rightly or wrongly – interpreted the teacher as instructing her to ‘Try not to hop onto the thought buses and try to think about the good things, not the bad things’, and subsequently became fixated during the practice on not thinking about bad things. If the instruction had been to simply notice all phenomena as phenomena, and realise how the mind comes and goes like waves in the ocean, then one could

argue that pupil 18 would have been unburdened with any pressure or expectation of the exercise, and instead could have been free to do simply that – learn to be present with and notice the phenomena as simply phenomena – whether good, bad, or neutral. Other findings by Cain, such as boredom and a concern with revealing aspects of one's inner life to others, were also reflected in this study, in the themes of 'mixed effectiveness' and 'awkwardness.' The concern regarding revealing aspects of one's inner life was perhaps more pronounced in the present study given the school based context and the change in teacher role identified. Kerrigan, who investigated the effect of 4 weeks of the 8 week MBSR course on 10 adolescents aged 13-19, found that pupils reported difficulty with prolonged sitting in silence, and also finding practices weird, as well as general difficulties which were not explored further – all findings which were replicated by this study [89]. Coholic had investigated the effects of an art-based mindfulness group on people aged 8-15 from a clinical population, and had found that 'almost all' of the participants described difficulty focussing as well as finding other members of the group annoying [83]. This study replicated the findings of difficulty with attention, but did not note any problems with group dynamics or pupils being annoyed by other pupils in the group, either directly from class observations, or reported in focus groups. Tharaldsen interviewed school pupils aged 17-21 who learnt a skill called 'conscious coping', which incorporated mindfulness practice, and found that pupils found some exercises difficult, and also had expectations about what might happen [95]. These findings were also replicated by this study. Similarities were also noted with Ruskin's findings, who looked at adolescents practicing mindfulness meditation to help with chronic pain, and subsequently found that the expectations for what participants may experience were not clarified enough prior to the activity, and not enough time was given to participants to understand and participate in the practices [93].

5.2 Linking pupil experiences to other literature

This study has demonstrated that some pupils experienced difficult and challenging thoughts and emotions. In school 1, 5 out of the 15 pupils interviewed described an increased experience of

troubling thoughts or emotions (4 female, 1 male), while in school 2, 1 out of the 5 interviewed described increased negative thoughts (1 female), and another two described increased experience of or difficulty dealing with emotions (1 male, 1 female). In school 3, 3 out of 26 described an increase of negative thoughts (3 male). For comparison, in psychotherapeutic interventions in adults, it has been established that there is an approximately 10% rate of what is described as 'harmful' experiences – where patients undergo a sustained deterioration in function as a result of the therapy [42]. Whilst it is acknowledged that the very brief exposure to a school based mindfulness informed curricula is not therapy, it is interesting and important to note that the rates of difficult and challenging experiences are reasonably high, although it cannot be established whether or not these experiences cause any sustained deterioration in function and cannot be directly compared to the rate of harmful experiences in adults undergoing psychotherapy. Also worth mentioning is that the type of experiences reported by the pupils (increase in troubling thoughts and emotions) are consistent with known difficulties experienced by adults undertaking MBI's and other meditation practices – for example, early sessions of MBCT highlight habitual patterns of thinking, such as intrusive negative thoughts, that arise during meditation, which can potentially make it seem as if these negative thoughts are more prominent or worse (as one has potentially never been made 'aware' of them before) [117]. The increase in troubling thoughts may also have been a paradoxical effect of thought suppression, and this seems very much related to both misinterpretation and ambiguity in content [118]. Some pupils also described a triggering of a bad memory, which then stayed and lingered during the day, which has also been documented to occur in the context of meditation [56]. Similarly, body-pain, either from prolonged periods of sitting or standing, has been described in the adult literature [56]. Although the time spent practicing was much shorter during the .b course, it is interesting to note that this did also occur for some pupils.

This study highlighted similar domains and contexts that have been demonstrated by other research into phenomenological experience in meditation practices, such as Lindhal et al, who proposed that in experienced Buddhist meditators, influencing factors relating to the practitioner (such as

psychiatric history, amount of previous practice, worldview and intention of practice), the practice (such as the type, stage and intensity of practice), and social relationships (such as relationships with the teacher and other participants) could act as mediators of any potential outcome of meditation practice for a given individual [56, 119]. Other authors have similarly advised caution to participants when choosing a mindfulness practitioner, citing their degree of experience and qualification as central to mediating the effect on the participant [120]. Difficulties in how to conceptualise experiences – such as contrasts between traditional Buddhist frameworks and modern Western psychiatric epistemologies – are also acknowledged in the literature [71, 119].

5.3 Effectiveness of .b

The mixed effectiveness of the .b program for individual pupils found in this study may be reflected in mixed effects of the .b curriculum in other quantitative trials. In one 2016 randomized study, 115 participant pupils (mean age 13.66) were taught .b [121]. No effects were found in the domains of anxiety, depression or eating disorder risk factors at three month follow up compared to the control arm. In fact, self-rated anxiety was higher in the mindfulness group post intervention. Of note is that the course was shortened to eight weeks (omitting the introductory lesson), was taught by an external instructor, had a variable curriculum length of between 35-60 minutes, and had minimal homework practice participation, potentially due to pupils having to print their own materials via a complicated process. The authors concluded that identification of active ingredients, optimal dose and age range, teacher experience, amount of homework, and other mediators and moderators of experimental design were important to consider in future research. A second further RCT by the same author similarly found no effects in primary outcome measures of anxiety, wellbeing, depression, weight/shape concerns, wellbeing and mindfulness at post intervention, six or twelve months follow up [122]. This thesis has highlighted that there is a complex interplay of individual and contextual factors at play in the .b curriculum, akin to those mentioned in these studies, and that future studies should build in an extensive process evaluation to understand more about how

contextual factors may influence the effects observed. Duncan et al. has similarly highlighted that measures of complex mental health interventions, such as SBI's, are not always best served by RCT's, but should also rely heavily on understanding what works, for whom, in what circumstances, and why – i.e. context [123]. The authors argue that intensive qualitative methods are useful to capture the mechanisms underlying the complex interventions and the contexts in which they work, in what has been called a 'realist' approach to the evaluation of complex mental health interventions [124].

Similarly, fidelity, defined as 'the determination of how well an intervention is implemented in comparison with the original program design during an efficacy and/or effectiveness study' has been highlighted as an important factor in the scientific validity of complex interventions such as school based mental health curricula [125, 126]. This study has shown that there is variability across the three schools with regards to how the curriculum is framed, how much time is spent on each lesson, how teachers engage with the pupils, and how the teachers conceptualise and manage difficult experiences. Changes in how teachers respond to and engage with individual pupils, as well as how they frame certain aspects of the curricula, may be relevant to what individual classrooms and pupils experience that curriculum to be, which may have implications for the scientific fidelity and subsequent trial outcomes of this intervention.

5.4 Mindfulness informed curricula and psychoeducation

This study has also highlighted the importance of differentiating, in any given mindfulness informed curricula, what might be deemed 'mindfulness' and what might be deemed 'psychoeducation'. Because of the difficulty in establishing this, it is hard to say with certainty which of the pupil experiences were due to 'mindfulness' (i.e. experiential practice) and which could be attributed to other psychoeducation components. If mindfulness is strictly defined as experiential practice, than there would be a minimal amount in this program – and it is thus difficult to determine whether some of the difficult and challenging experiences occurred specifically during the time of formal practice, or if they occurred at other times. For instance, the experiences of being judged may have

occurred during explanations of psychoeducational content. In a broader sense this relates to difficulties in establishing which parts of MBI's are the 'active ingredient', and disentangling the effects of experiential practice from other components of these curricula [127]. Nevertheless, if some of the experiences stemmed from a sense of being judged or invalidated due to a focus on positivity by the curriculum or the school, then this may be relevant to other psychoeducation curricula which may have a similar focus on positive thinking or wellbeing. Similarly, the way in which teachers and schools manage difficulties in other school based mental health interventions, including the degree to which they understand potential challenges and difficulties, may be important in how they are subsequently managed, which may ultimately affect the pupil's experience. There is current literature which also addresses the need for complex health interventions, such as school based mental health curricula, to have clearer evidence for what their critical features are (i.e. the features most likely to produce the desired effect), and how best to implement these interventions so these features remain pertinent [126]. This is especially important since it is well recognised that in related fields, such as behaviour change in psychotherapy research, that although there is ongoing work in this field, there is still no robust evidenced based explanation for how even the most well studied interventions produce change [128].

5.5 Individual versus targeted approaches

This study has highlighted that pupils who encountered difficult and challenging experiences may have been more vulnerable to begin with – pupil 11 and 8 from school 1, and pupil 2, 3 and 5 from school 2 for example – all described difficult situations in their home lives. This may have made it more likely that their phenomenological experience would *already* contain difficult thoughts and emotions, and without adequate support and management from the school, result in these difficulties arising during practice and persisting if the pupils felt unsupported. This then raises the issue of whether pupils should be screened beforehand when engaging in such curricula, in order to identify any risk factors for potential difficulties and subsequently be able to assist with managing

these better. However, aside from uncertainty regarding what exactly these risk factors may be, this then also potentially negates the usefulness of having a 'universal' program in the first place, as one of the advantages is that it potentially reduces stigma [77]. Ideally, a balance should be sought between providing a curriculum which is relevant and useful to all, while identifying and supporting those pupils who are more in need. How well the teacher knows the individual pupils and their home life, and how in turn this may alter how the teacher frames certain parts of the curriculum, and also manages the pupil, is also important here. A meta analysis by Mullen et al of 500 patient education trials showed that interventions were more likely to be effective if they met criteria fitting with behavioural change theory, such as being tailored to the patient's individual learning needs or providing feedback about the patient's progress [129]. Similarities can be drawn with this study of .b, where pupils did not receive individual feedback or always report a sense of progress, and did not have explicit learning goals.

Hawe et al has highlighted that in complex interventions, such as school based mental health curricula, the function and process of the intervention (i.e. the hypothesised change process), not the individual components, should be standardised in order to achieve intervention integrity [130]. This study has demonstrated that, at least from the pupil's perspectives and possibly from the teacher's perspectives also, there was not a clear 'change process' identified regarding how pupils may progress or how they may be expected to change as a result of doing the curriculum. Fixing this may then allow the form of the curriculum (the individual components) to be tailored to local conditions and perhaps individual participant contexts. This lack of clear progression may have contributed to some aspects of the curriculum being reduced to 'bandaid' measures, and rather than promote active growth and change, instead create a sense of some pupils being judged or repressed. Both Duncan et al and Hawe et al highlight that when complex interventions are tailored to local conditions (i.e. individual pupil contexts, circumstances and situations – a realist approach) without altering the overall function or process (i.e. the desired outcome), then this could potentially improve intervention effectiveness and integrity [123, 130]. During implementation of these

complex psychosocial interventions, learning to hear pupils and their individual contexts and life situation, and respond flexibly to this, may be important in their overall success. This is particularly true for understanding who might be more likely to encounter a difficult and challenging experience, and knowing how to reduce the likelihood of this, and what to do about it if it occurs. Other contexts highlighted by this study that may have impacted on pupil experience differently were the length of the curriculum, with one pupil finding it too short to achieve adequate mastery; the arrangement of lessons – where key learning points were not made explicit at the start of the course or were blurred or ambiguous due to the amount and type of content; the level of attendance and how missing lessons may impact a given pupil's interpretation; the level of engagement by pupils (particularly when lessons were rushed, skipped or abridged); the degree of retention of knowledge; and exposure to previous curriculums and preconceived ideas.

5.6 The curriculum – meaning and framing

Bonfenbrenner's ecological systems theory posits that child development occurs within a series of interrelating contexts – the micro, meso, exo, macro and chrono systems [131]. These include contexts such as family, peer groups, school and social settings, and the way in which these systems interact. Of relevance then is how this theory sheds light on how an individual pupil may interact with the teaching and learning of a mindfulness curriculum, because a pupil's individual background, family life, culture, religion, peer group and social setting would all play a part in determining the ultimate meaning and impact that a pupil gives to the messaging within the curriculum. In a similar way, the paradigms, intentions and teaching points within the curriculum itself are all based on the context and world view of those who write and deliver them – how then these contexts and meaning overlap with those of the pupils would vary, and may have some part to play on the impact on the pupil. As discussed previously, the way in which teachers then frame the content, based again on their own world view, similarly impacts on how pupils perceive this concept of mindfulness. The

teacher's knowledge of individual pupils also may impact on how a teacher frames the curriculum for that specific pupil, given, for example, what the teacher may know about the pupil's life at home.

It is also important to note the adult centric lens that may at times be present in the system of education, whereby children can be treated as objects, and childhood treated as a social institution [132]. Childhood and children can therefore at times be constrained by this adult centred society, causing marginalisation and unequal power relations [133]. This idea is reflected by educational theorists such as Foucault, who described how education could be used as a 'technology of control', in order to serve the interests of those who deliver it, rather than the children who consume it [134, 135]. An example from this study is the teacher from school 1 who said 'Sit up, no talking, everyone in their bubbles, it seems like everyone has forgot that recently.' In this example, this teacher used a .b practice as a disciplinary tool, referring to the internal space or focus of attention that can be cultivated through mindfulness practice, and instead framing it as a way of disciplining and managing class behaviour. This subtle shift in framing could be a reflection of the greater institutional aims, which may often appear as masked or unconscious to the pupils, whereby tools such as discipline and behavioural control may ultimately lead to improved institutional performance measures such as grades and behaviour. If mindfulness at its heart is about freedom of experience – to simply learn to 'be' – then these pressures may surely impact on a pupil's understanding and experience of the practice. Power in this respect is not given to the children to simply learn to 'be' – to be present as themselves, with feelings, thoughts, emotions, phenomena and experience. Instead, there may always be strings attached – an outcome or agenda which is never explicitly mentioned to the pupils, but may always lurk below the surface. Institutional agendas like the motivation for why these curricula are utilised by individual schools, how much time they donate to them, the importance they give them amongst other types of curricula, and how they fit into the overall 'ethos' of the school, may be responsible for the ultimate meaning, interpretation or experience of these types of curricula.

5.7 Teacher training & managing difficulties

This study highlighted that a number of factors that potentially impacted pupil experience may be influenced by the level of teacher training. MiSP requires that teachers complete an 8 week secular mindfulness course and have 2-3 months of personal practice of 5 days per week before registering for the .b training course, which is itself 4 days [136]. MiSP also then recommends ongoing personal commitment to a mindfulness practice following this, but this is not mandatory or monitored. This relatively short training period for teachers and relative lack of personal practice may impact on their overall quality, competency and nuanced understanding of teaching mindfulness. This might be particularly true when discussing important but subtle points in teaching, such as the relative 'choicelessness' of allowing all thoughts and phenomena to be present and unfold versus learning to 'hop on and off' certain thoughts, which could be differentiated as good or bad. Some pupils seemed to lack conceptual clarity regarding this, and a 'deeper' practice on the part of the teacher may have helped reduced these interpretation errors. Other contexts such as teacher confidence, delivery and role identity may also have been relieved with a greater degree of training. It is similarly not clear to what extent potential pupil difficulties were addressed in the teacher training and how teachers, if at all, were trained to deal with these difficulties. The length of teacher training and the degree to which potential pupil difficulties and their management are addressed in this training would no doubt impact on the subsequent pupil experience of mindfulness experienced through the .b curriculum. Even though all teachers in this study rated as 'competent' on the MBI-TAC, this may itself highlight a need for greater recognition of this concern in the training and competency certification for this field.

5.8 Limitations

As established, one of the difficulties in this study was identifying which difficult and challenging experience directly stemmed from experiential practice, and which experiences may have stemmed from other psychoeducation components of the curriculum. Another limitation was the

generalisability of the data – even though this was not the primary aim (instead, to capture meaning and phenomenological experience and build underlying theory), and even though the study was quite large from a qualitative perspective, it was not known exactly how representative the experiences of the pupils in this study are to the broader populations of young people. This may have been useful in order to inform perhaps the more quantitative literature on incidence of difficult and challenging experiences in MBI's.

In addition, the researcher was unable to access the teacher training protocol for teachers in .b, including knowledge of the training protocol for teachers and how they are directed and guided by MiSP to frame and implement the program. Subsequently, it was difficult to differentiate which discrepancies existed because of specific instances where teachers deviated from protocol, and where this may have been allowed as part of the teacher guidance. Future studies should have sound knowledge of teacher training protocols when investigating school based mental health curricula and their effects on pupils. A similar difficulty encountered was that this was a relatively novel area of research, and quite difficult to begin on firm footing – as discussed in the introduction, a key limitation was that the area of difficult and challenging experiences in the general adult psychological literature, let alone meditation literature, is lacking, and so there was not really a firm foundation with which to approach designing and conceptualising this study.

Another limitation was a lack of input from the area of developmental or child psychology, as it would have been useful to have a perspective on how different developmental stages may have impacted on pupil's experiences.

In future, it would be useful to explore the child context more, as well as a deeper phenomenological understanding of children's experiences of meditation or mindfulness, to better understand how children react and respond to meditation, including at different ages or developmental stages. It would be good for pupil's life context to be explored more, perhaps in individual case studies, to further elucidate the meaning making and potential change process for individual pupils.

Similarly, a more detailed analysis of each school's data set - focussing on comparisons between time points within schools and between schools – would have been useful to highlight similarities and differences between schools, and contexts which may have contributed to this. A comparison between time points may also have contributed to a better understanding of the change process for pupils and contexts contributing to this.

6. Conclusion and Implications

Child and adolescent mental health is a global public health challenge, which is increasingly being addressed through SBI's, some of which, including some mindfulness informed curricula like .b, take a 'universal' approach. This study drew on a series of case studies which sought to capture the pupil's experience of learning mindfulness through the .b curriculum, in order to address the question of whether there was anything difficult or challenging for individual pupils in learning mindfulness meditation in this way. This study showed that there were several difficult and challenging experiences encountered by pupils, including difficult emotions and exacerbation of negative thinking. Contexts surrounding these experiences were also explored, which fell into domains such as pupil interpretation and mis-interpretation, curriculum contexts, and teacher intention. Complex mental health interventions such as school based curricula were discussed with regards to the findings, such as the importance of a standardised curricula that is reproducable and internally coherent, but also flexible, adaptable and responsive to individual pupil needs and contexts. This should also include an understanding of what difficulties may arise, for whom, and how to potentially mitigate and manage them. The length of teacher training and the degree to which potential pupil difficulties and their management were addressed in this training was also discussed. The following conclusions and recommendations could be considered when designing or implementing mindfulness-informed programs of a universal nature in schools:

6.1 Adequately framing intention

In order to potentially reduce interpretation errors or subtle biasing either from the school or within the curriculum, for example suggesting that these approaches are intended to 'fix' mental health problems in children, it might be useful for the curriculum to have a more clear and adequately framed intention. The intention could be considered to be something such as an intervention intended to foster awareness of the child's 'interior world' or 'interior landscape' (which includes thoughts, thinking, feelings and emotions amongst other phenomena), since fostering awareness of

the interior landscape is one of the original intentions of MBSR [137]. Preconceived biases, including previous experiences of a mindfulness curriculum, could also be accomodated.

6.2 Acknowledging and dealing with difficulty

In order to reduce pupil anxiety and fear about whether a given sensation or experience is good or bad, in particular in relation to others, (e.g. whether or not they are doing a practice accurately), it may be helpful for pupils have a range of possible experiences highlighted to them during the course. This might include highlighting potential difficulties that pupils may encounter and how best to manage them, including how best to support, inform and assist with teacher confidence with this. Similarly, issues such as change in teacher/pupil power relations, and awkwardness, could be addressed directly and normalised as part of the taught curriculum, in addition to during teacher training. Parts of curriculum content that are perceived by pupils to 'not work' or not make sense could be evaluated.

6.3 Safety and safeguarding

In a similar way, it may help pupils to understand which experiences would raise concerns from a safety point of view (i.e. negative emotions getting worse) and pupils could be given advice on how to manage these – i.e. to come and talk to the teacher at a designated time. Similarly, teachers could be made aware of potential difficulties that may be encountered by pupils and how best to manage these as part of their training. Furthermore, it may be important to make sure that individual pupil contexts are known to their fullest extent, as pupil context may contribute to the likelihood of having a difficult experience. This may enhance the risk benefit ratio for individual pupils as their context would be better understood and the program may be able to be adapted in small ways to better suit their context. The implication for specific pupil subgroups, such as those with Aspergers, ADHD or other neurodevelopmental disorders also need further consideration, perhaps through screening or program adaptation.

6.4 Content of curriculum

Since it is not always possible to control exactly how a pupil will interpret a given lesson, or how a teacher will deliver or frame the curriculum, it may be helpful that the content of any mindfulness curriculum is as internally coherent as possible. For instance, a non-judgmental, experience based perspective, with a focus on cultivating awareness of the interior landscape through the training of attention, may be useful to be at the forefront of any such curriculum [137]. Perspectives which blend in positive psychology, gratitude, or a performance perspective such as 'flow', may need to be carefully contextualised or evaluated. Furthermore, it may help if the definition of mindfulness in any such curriculum is clear – a focus on 'the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment' [138]. The amount of content, the focus on psychoeducation, the desired intention or outcomes, the length of curriculum, the appropriate identified age range, the degree of experiential practice, and the implications of changing, shortening or omitting parts of the curriculum could also be considered when designing mindfulness informed curricula and in teacher training protocols. Curriculum content that references sensitive or personal parts of the body may need to be carefully evaluated given the school context. Content that doesn't make sense to pupils or that pupils find ineffective may also need to be evaluated.

6.5 Implementation & school factors

There are a number of factors relating to how the school implements a mindfulness informed curricular that may impact ultimately on pupil experience of the program, and need to be taken into consideration when designing and implementing such curricula. These include the class size, age of pupils, time of day the lesson is taught, whether optional or voluntary for pupils, the amount of homework (and whether it is enforced or optional), whether individual lessons are omitted or abbreviated, the overall duration of the course, (and how frequently lessons occur), whether single classes or whole school year levels participate, and whether classes are continued beyond the initial

course delivery. Furthermore, teacher confidence and potential sources of error and bias such as anecdotes and rushing the lesson, and change of teacher role and it's implications on pupil awkwardness and discipline, are also factors which may need to be adressed as part of teacher training. The potential for blame when focussing on mental health, and the possible judgment that may be perceived by pupils, have also been highlighted as potential occurances and may need to be addressed.

6.6 Implications for further research

SBI's are complex psychosocial tools used to promote wellbeing and potentially assist with preventing mental ill-health in pupil populations, thereby helping to address this global public health challenge. It is important to recognise however that universal interventions may not necessarily be helpful or beneficial for everyone undertaking them. Further research should continue to investigate the meaning making and individual phenomenological experience of mindfulness informed curriculum from the perspective of children, taking into account their life view and other 'ecological' contexts. The sense that some pupils are feeling pressured by a focus on 'mental health' also needs to be addressed. Pupil, teacher, curriculum and school contexts need to be taken into consideration when designing further research trials or updating curriculum content and design. Adequate safety and safeguarding protocols may need to be investigated and put in place to understand and mitigate difficulty and protect and validate pupil experience. Fidelity in these interventions also needs further consideration, balancing critical curriculum components and their effective delivery with the ability to actively respond to and manage individual pupil experience, including difficulty. Teacher training pathways may also need to be addressed.

6.7 Personal reflection

This project has required me to face several challenges and extend myself accordingly. Firstly, since I didn't have any prior experience in the area of school based mental health curricula, and I have never worked in schools, I had to extend my knowledge considerably in this literature, as well as through real world experience when recruiting and researching in schools. Also challenging was the fact that difficult and challenging experiences in MBI's is a new field without significant existing nomenclature to build on. Coming from a background of clinical medicine and psychiatry and attempting to develop new language for this field was difficult but provided useful knowledge and experience when discovering a point of overlap between these fields. In order to sample a range of pupils, the sample size was large for a first time qualitative project and a steep learning curve. The research environment and department mainly specialised in quantitative research so I had to be a self-directed, independent learner. The research was located within The Department of Psychiatry and this informed the framing of the project, but there was also overlap and input from the Department of Education, which made for a unique blend of epistemologies which was at times challenging but ultimately proved useful due to the intricacies of this particular project. Despite these challenges I have learnt an incredible amount in the field of school based mental health curricula, mindfulness, categorising and describing harm in psychological interventions, child mental health, qualitative methodology, and running a small research project and coordinating a research team. I have also worked incredibly hard because I have continued clinical child and adolescent psychiatry throughout this project, including working full time in the last six months of writing the thesis.

6.7 Acknowledgments

Data collection was assisted by Catherine Crane, Laura Taylor and Emma Meldicott, who were present in focus group interviews and also assisted with developing emerging themes during data analysis. James Robson also assisted with developing emerging themes. Catherine Crane, James Robson, Willem Kuyken and Ruth Baer assisted with project design.

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Appendix

1 Table: Adverse/negative experiences, 'side effects' or unusual, strange or mysterious occurrences during meditation in adults

2 Video teaching scoring results (MBI-TAC)

3 .b curriculum rubric

4 Audit document & bracketing interview

5 Consent forms

6 Introductory script for focus group

7 Interview questions

8 Introduction script when meeting class for first time

9 Journal templates

10 Classroom observation notes template

Appendix 1:

Table: Adverse/negative experiences, 'side effects' or unusual, strange or mysterious occurrences during meditation in adults

Study	Type of article	N	Type of meditation	Duration of meditation	Pre-existing mental health or medical condition?	Type of experience
Kuijpers et al (2006)	Case report	N = 1 24 year old Caucasian male	Unguided and intense Hindustan-type meditation	Single session, unreported length	Previous hypomanic and depressive episodes, untreated Recent stress and relationship problems	'Acute sensation of being mentally split Short lasting visual dysperceptions and hallucinations (vari bright colours), idea of reference and delusional convictio he had caused the of the world Pan-anxiety and feelings of guilt
Lindahl et al (2014)	Qualitative study	N = 9	Vipassana, Zen, Shamatha	Both retreat and daily	Not listed	'Curtain of light' 'Colours and lights' 'Christmas lights, shimmering' 'Bursting with light' 'Lights were on… painful things happening' 'Lights passing over my eyes…perceptua distortion of being tunnel or roller coaster' 'Multiple white spo in vision' 'Sparkles, sparks, m coloured lights' 'Rays of light'

Gifford-May et al (1994)	Qualitative study	N = 10	Siddha Yoga, Transcendental Meditation (TM), Buddhism, and two co-researchers who reported reading widely in various Eastern philosophies but were currently practicing a visualization technique that focused on the chakra system of Kundalini Yoga.	Not listed	Not listed	'The very unusual nature of these experiences, limite the expression and understanding of these descriptions t varying degrees' 'Transcendence beyond normal physical and menta boundaries of self' 'Different sense of reality'
Ben-Soussan et al (2015)	Qualitative study	N = 43	Quadrato Motor Training	Either 1 week or 4 weeks	Not listed	'Tension' 'Tired' 'Stress' 'Distracted' Spontaneous visual images - 'geometric figure' 'cathedral' Altered perception time and space
Lomas (2014)	Qualitative study	N = 30 male	Mindfulness, LKM, Six Element, Sadhana practice, 'light channeling'		4 had history of psychiatric problems 7 had therapy in the past 3 having therapy presently	Difficulties during meditation - Physical discomfort - Self doubt - Feeling trapped - Dull, boring repetitive Not feeling in contr Struck by negative content of thought Confronting painful feelings Exacerbating psychological issue Reality being challenged - Vision of golden vibrating sphere - Out of body sensation

						- Crazy experience close to psychosis
Hwang (2007)	Case report	N = 1 48 yo female	Qi-gong	Several times per week for approx. 2 years	Intermittent major depression Saw counsellor in past	Manic, grandiose, hyperverbal, agitat speech tangential, loose, disjointed During previous practices of Qi-gon - Seeing colo streaming from sky - Heightened senses - Read other peoples mi - Messages from TV an radio about governmen conspiracy
Lim & Lin (1996)	Case report	N = 1 57 yo male	Qi-gong	3 weeks, intensive practice	Nil	Delusions and auditory hallucinati
Goleman (1971)	Case report of two seperate people	N = 2 1) Woman, late forties 2) Woman, 22	TM	Not listed	Not listed	1) Visual hallucinatio of deceased mother, pa incontinenc access childhood memories 2) Sensation o jaw crackin and then perceiving teeth had become perfectly aligned

Persinger (1993)	Quantitative and qualitative	Study comparing 221 meditators against 860 non-meditators	65% TM	N/A	N/A	- Significant wider rang complex partial epileptic-lik signs. - Experience vibrations, hearing one name calle paranorma phenomen
Austin (2010)	Historical report	Describes traditional teaching of Japanese Zen tradition	Zen	N/A	N/A	- Unusual experience called 'Mak (world of th devils) - Unusual bo sensations, emotional swings, illusions an hallucinatio
Maupin (1965)	Qualitative	Study of N = 28 male college students	Concentration exercise related to Zen Buddhism	Daily 45 minute practice over 2-3 weeks	N/A	- Students reported hallucinoid feelings, muscle tension, sexual excitement and intense sadness
Kornfield (1979)	Qualitative	N = 100 (2 week retreat) N = 63 (3 month retreat)	Insight meditation	Daily schedule of silent sitting meditation, mindful walking	N/A	- 80% report unusual experience including spontaneou movement, alterations body image perception, visual hallucinatio strong emotions a mood changes, rapture and bliss

Braud (2008)	Historical report	Description of traditional text of Buddhist and Hindu sources	Advanced Yogic meditation practice	'Masters'	N/A	Siddhis ('powers') - Paranorma abilities e.g body shrinking, enlarging, visions, out body experience precognitio mind readi controlling mind of others, experience past lives
Lazarus (1976)	Three separate case reports	1) N = 1 (34 yo woman) 2) N = 3 3) N = 1 (24 yo woman)	1) TM 2) 'Meditation' 3) TM	1) Weekend retreat 2) Unknown 3) Unknown	N/A	1) Serious sui attempt 2) Complete mental breakdown requiring hospitalisat 3) Severe depersonal ion
Shapiro (1992)	Qualitative	N = 27 (mean age 35.6)	Vipassana	Either 3 month or 2 week retreat		- Relaxation induced anxiety and panic - Paradoxica increase in tension - Less motivation - Boredom - Pain - Impaired reality testi - Confusion a disorientat - Spaced out - Depression - Increased negativity - Being more judgement - Addicted to meditation

Craven (1989)	Qualitative	Need to find paper	Need to find paper	Need to find paper	Need to find paper	- Uncomforta e kinaesthe sensations - Mild dissociation - Feelings of guilt - Psychosis-li symptoms - Grandiosity - Elation - Destructive behaviour - Suicidal feelings
Kutz (1985)	Qualitative	N = 4	Mindfulness meditation	10 week, 2 hour weekly group meetings with home practice	Yes – all patients seeing psychotherapist s	- Expression repressed trauma fro past - Strong emotions: fear, anger, apprehensi despair, sobbing
Sadzio (2014)	Case report	N = 1 (46 yo woman)	Pranic healing	Intense trance states and concentration for >20 years	No	- Change in t way she wa affected by pranic heal unable to s her 'third e uncontrolle receiving o mental energies, intrusion o other peop aura, derealisatio depersonal ion -
Sethi et al. (2003)	Case report	N = 1 (30 yo male)	'Meditation retreat'	6 days of intense meditation	Previous psychotic episodes at prior meditation retreats	Bizzare behaviour, perplexed, religious delusions, disturbe sleep
Sethi et al. (2003)	Case report	N = 1 (20 yo male)	'Intense meditation'	4 days	Nil known	Aggression, inappropriate laughter, suspiciousness,

						delusions of referen and persecution, auditory hallucinati
Walsh (1979)	Case report	N = 1 (25 yo male)	'Meditation retreat' involving no communication or eye contact, walking and sitting in total silence	1 week	Previous schizophrenic episodes	Agitation, screamin physically abusive, psychotic
Walsh (1979)	Case report	N = 1 (23 yo woman)	Intense meditation retreat, 18 hours meditation per day	18th day	Acute schizophrenic episodes	Bizarre speech, paranoia
Walsh (1979)	Case report	N = 1 (23 yo woman)	Intense meditation retreat	4th day	Schizophrenia	Suicidal ideation, psychosis
Yorsten (2001)	Case report	N = 1 (25 yo female)	Yoga course	2-3 days	Brief periods of low mood	- Rapid spee sleeplessne over activit disinhibitio grandiosity erotomania
Chan-Ob et al (1999)	Case report	N = 1 (25 yo female)	'Intense' unidentified style of meditation at temple, minimal sleep, eating once per day	7 days	Depression, stress, family problems	Persecutory delusio Hallucinations Disorientation to ti and place Labile affect Loosening of association
Chan-Ob et al (1999)	Case report	N = 1 (35 yo male)	Walking meditation for three consecutive nights in a temple, intense meditation during day	3 days	Recent stress	Hallucinations Grandiose delusion Talking with God
Chan-Ob et al (1999)	Case report	N = 1 (28 year old woman)	As above	10 days	Schizophreniform disorder	Persecutory delusio Hallucinations Loosening of association

	C	R	E	G	T	G2		C	R	E	G	T	G2		C	R	E	G	T	G2	
Name	1	2	3	4	5	6	Overall	1	2	3	4	5	6	Overall	1	2	3	4	5	6	Overa
School 1 (B1)	3	4	3	3	4	4	4	4	4	4	3	3	4	4	4	4	4	3	4	4	4
School 2 (B2)	3	3	2	2	3	3	3	2	3	2	2	3	3	2	2	3	2	2	3	3	3
School 3 (class 1)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
School 3 (class 2)	5	6	6	5	5	6	5	5	6	6	5	5	6	6	5	6	6	5	5	6	5
School 1	5	4	4	4	4	5	4	4	3	3	3	3	4	3	5	4	3	3	3	4	4

Appendix 2: Video teaching scoring results (MBI-TAC)

Domains (as per Crane 2016)

C = Coverage, pacing and organisation of session curriculum

R = Relational skills

E = Embodiment of mindfulness

G = Guiding mindfulness practices

T = Conveying course themes through interactive inquiry and didactic teaching

G2 = Holding the group learning environment

Appendix 3: .b curriculum rubric

Adapted from Kempson 2012

Lesson	**Key Learning Points**	**Key Practices**
Lesson one – an introduction to mindfulness	Brief theoretical background to mindfulness and its potential applications. Brief outline of the lesson contents.	N/A
Lesson two – Playing attention	Directing attention (metaphor of spotlight is used). Exploring and investigating bodily sensations and the breath. Aiming and sustaining attention through firm, patient kind repetition.	Simple directing of attention (this exercise requires pupils to pay attention to discrete parts of the body and to explore the sensations they may experience). Aiming and sustaining attention for 2 minutes (This exercise requires pupils to direct their attention to a particular sensation (e.g. breath) and subsequently to redirect it when attention wanders). Counting breathes in one minute (This exercise requires pupils to count the number of breaths they take in one minute).
Lesson three – Taming the animal mind	Explore idea that the mind has a life of its own that is outside our control. Curiosity, kindness, openness and acceptance can help us deal with fluctuating mind states. It is possible to anchor attention in lower half of body to increase calm when the mind is stormy.	FOFBOC – introduced with explicit suggestion that this can be used to help feel calm.
Lesson four – Recognising worry	Recognising the impact of cognitive distortions (e.g. interpreting and story telling, rumination and catastrophizing).	7-11- (This exercise requires pupils to pay attention to their breath whilst they inhale for 7 seconds and exhale for 11). Lying down body scan (Beditation) – (In this exercise

		pupils are lie on their backs with their arms by their sides. They are then guided through a meditative exercise, paying attention to various bodily sensations and to observe their mental reactions).
Lesson five – Being here now	Understanding the impact of habitual and automatic modes of functioning (metaphor of autopilot is used). Developing appreciation of present moment experiences (savouring).	Mindful Mouthful- During this exercise, pupils are required to taste different items of food (firstly a Malteser, secondly a piece of chilli or onion and lastly a raisin). Pupils are encouraged and guided to explore, in as much detail, their physical and metal experience, both in anticipation to tasting and whilst eating. '.b' exercise - This exercise requires pupils to walk around, pretending they are stressed and busy. When the teacher blows a whistle they are to stop, pay attention to their feet on the ground, feel the sensations of their breathing and pay attention to how they are presently feeling).
Lesson six – moving mindfully	Exploring the application of mindfulness to daily activities. Investigating the effects of slowing down and paying conscious awareness to our actions.	Samurai walking - (This exercise requires pupils to walk 10 -20 meters focusing on the physical sensations in their legs and feet). Routine revisited – (As a purely home based task, pupils are requested to choose one activity they do regularly and to purposely do it more slowly, paying attention to their sensations and reactions).
Lesson seven – Stepping back	Recognising our stream of consciousness and re-perceiving the nature of our thoughts	Listening to thoughts as sounds – Pupils are encouraged to observe their stream of consciousness and attempt to

	Recognising habitual thought processes Depersonalising thought / stepping back	perceive thoughts as impersonal sound. Top ten tunes – Pupils are encouraged to notice reoccurring thoughts and list the 10 most prevalent. Seeing thoughts as clouds – Pupils are encouraged to depersonalise thoughts and see them as passing clouds, letting them come and go freely without reacting to them.
Lesson eight – Befriending the difficult	Understanding stress and how it impacts an individual. Learning to accept and "be with" difficult emotions Responding rather than reacting to emotions	Identifying stress signature – Pupils are directed to imagine an imminent stressful experience and asked to notice and record how stress manifested in their bodily sensations and their breath.
Lesson nine – Taking in the good	To encourage an appreciation of good things in life Even ordinary things can be 'good' if we pay attention To look at the advice of people who have managed to appreciate the good even in awful circumstances Practice 'taking in the good' so you can experience it directly	Mindful eating – grape – including an appreciation of all the conditions that led to the grape being present in their hand. Notice experience of eating a grape and mind and body when doing so. Gratitude practice – bring to mind a person, pet or place that you love. Notice sensations in body and breathe with them. Look for feelings of calm and notice sensations of wellness. Make a deliberate decision to attend to the good. Say thank you. Notice any bodily responses to feelings of appreciation, gratitude or joy. Optional – write gratitude text/letter/call
Lesson ten – Pulling it all together	Identify what has been most useful about the course	FOFBOC

	Consider areas of life to apply mindfulness skills Provide feedback	Mindful reflection on questions What have you learnt that has been useful? Could mindfulness practice help in particular areas of life? What can you appreciate? Where could you benefit from responding rather than reacting? What would you like to remember for the future? Habit breaker mindful eating of chocolate

Appendix 4: Audit trail

July 2015

Email to C.C. asking to work together on project involving mindfulness, educational psychology and preventative psychiatry. C.C. and W.K. suggested project on how young people experience mindfulness in schools (benefits, disbenefits) and operationalising 'negative' effects of meditation.

Nov 2015

First draft of project outline involves 'exploring both experience and interpretation' of practicing mindfulness meditation in school, with particular reference to challenging experiences, and quantifying if experience changes over time.

Nov 2016

Presented overview of project at team meeting on 2nd of Nov - explored options of collecting data using journals, standardised questions, and interview structure during this meeting. Feedback from W.K. and C.C. that early findings from literature review were very wide & heterogeneous in what types of 'meditation practices' used – secular school based programs discussed as important for this project. Ongoing work on conceptualising 'harm', adverse events and unusual experiences. Quantitative analysis considered - possibly too narrow to capture range of pupil's experiences. Email from colleague (K.C.) at Sussex University discussing similar topic – they had difficulty in finding acceptable questionnaire/item for measuring parameter of 'bad effects' also.

Dec 2016

Skype call with R.B on 12th of Dec discussed ongoing subjective issues around interpreting 'harm' from meditation. Literature review begun looking at all qualitative adult experiences of 'meditation' (as generic term), all children's experiences (qualitative and quantitative). Identified issue of diverse forms of 'meditation', timeframes, contexts, intent/indications, study quality, subjectivity of participant's 'response'.

Jan 2017

Attended qualitative research course. Focus shifts to greater exploration of individual meaning attributed to experience by pupils, individual story. This was lacking in literature review also. Idea posited to look at both the 'range' of experiences by pupils and the 'meaning' attributed to them. Different analytical methods considered – IPA, conversational analysis, framework analysis. Thematic analysis considered due to relatively common usage, simplicity, and use in previous similar work. Ongoing conceptual work categorising 'risk', harm, adverse events in mindfulness – emails with C.C., W.K., R.B. Framework posited for categorising experiences as 'desirable, undesirable, anomalous and harmful'. Feedback from W.K – to have more focus on thesis away from general mental health and education, to narrow down on pupil's experiences, and stronger definitions about mindfulness practice for young people (aims and ranges of practices).

Feb 2017

Email correspondence with qualitative research department to assist with further clarification on trial design. Difficulty conceptualising 'harm/change' ,'subjectivity' of experience in mindfulness and biasing trial by opening discussing/asking about 'difficulties'. Work streams expanded to help resolve conflicts within Masters & too much work – separate paper on systematic review of difficulties in adults, operational paper on 'harm' in meditation.

March 2017

Emphasis placed on the 'journey' of mindfulness undertaken by the pupils leading to current use of 'navigate' in title. Expanded methodology to include ethnography, case study. Second supervisor J.R. with expertise in qualitative methodology added. Identifying appropriate case study discussed, following more than one class to obtain more rich data. Tension between documenting 'objectively harmful events' (imposing operational definitions) and allowing inductive understandings. Idea of sampling pupils for individual interviews introduced but later rejected due to potential bias.

April 2017

After further discussions with C.C., W.K., J.R., R.B., ideas of both focus group and individual interviews, recording with video camera introduced. Ethics application underway.

May 2017

Research integrity online course completed. Further discussions with during team meeting introduced ideas of journal and teacher interviews. Issues of how to best sample pupils raised. Type of analysis again discussed – framework analysis mentioned again but later IPA accepted due to particular emphasis on 'individual experience'. Presented at team meeting 'Where does mindfulness sit in the wider landscape of youth mental health interventions?' – feedback on power differential in words such as 'intervention' and importance of hearing pupils voices.

June 2017

Presented at team meeting an overview of project with changes since earlier presentation in November. Based on feedback, included weekly journal, keeping two focus group interviews (one in middle and at end) to focus on 'general experiences', with individual interview to focus on pupils experiences of significance and difficulty – fitting more in line with 'meaning making' and avoid perceived over emphasis on 'negative experiences'. Diary design updated to include pre and post session entries to capture experience both during session and during previous week. Decided to interview all students to cancel out bias of 'preselection'. Project then expanded somewhat to fit inside broader study looking at pupils' more general experiences of the .b course – with masters to focus more on meaning making and interpretation of all experiences – particularly difficult or significant experiences rather than broader task of 'experience sampling'. This would help to balance out the project and fit it in a greater context, and assist in responsible reporting of evidence & workload. Introduced idea of two researchers gathering data for masters due to safeguarding and better coverage of data. Discussed phrasing of interview questions to not be too leading and using pupils own words in the questions, including using statements from diary in individual interview.

July 2017

Ethics approval given

Sept 2017

Recruitment of schools begins. Schools that are known to the OMC are contacted but less than usual are offering the .b program. Search extended by emailing 20 local .b mindfulness teachers to ask if they are teaching the course soon. Only one is, but school declines to participate in research.

Oct 2017

Attended 2x afternoon seminar by Prof Jonathan Price, inventor of IPA. Decision to analyse individual interview using IPA and to decide on type data how best to analyse focus group interviews

– IPA or TA. Email to associates of OMC that have contacts with .b teachers yields some results. Five schools identified as appropriate and consented.

Nov 2017

Interview questions modified – prompts with two questions in them changed to separate questions, questions simplified and less leading. Bracketing interview completed with J.R. – identified role of transformation in researchers own history leading to interest and themes in current project. Began going into classrooms, taking observational notes, video recording sessions, informally talking with pupils.

Nov-March 2018

School visits occurring. Debriefing talks and discussion with three assisting fellow researchers.

Feb 2018

Presentation of preliminary results from focus group interviews to research team. Discussion around emerging themes, issues.

April 2018

Coding meeting with C.C, J.R and two other assisting field researchers. All have looked at focus group 1 and 2 from group 3 from school 1 and individual pupil interview, and have created preliminary themes. Group discussion of themes, codes and narrative direction.

May 2018

Meeting with CC discussing themes, codes and narrative direction

June 2018

Meeting with C.C and L.L discussing themes, codes and narrative direction

Meeting with C.C discussing themes and codes and narrative direction

June 2018 – Jan 2019

Writing thesis with extensive peer review and revision process

Bracketing interview

- Discussed idea of adverse effects/harm in meditation coming from Catherine & Willem as relevant to current mindfulness literature
- Have you encountered difficult experiences in mindfulness?
    - Yes – mindfulness can be very difficult at times. Sometimes it can be very peaceful or relaxing, oftentimes it is difficult for me. I often think of it as an analogy to long distance running which I also enjoy– it hurts and is painful but I enjoy doing it
    - JR: So is mindfulness something to be endured?
    - EM: No, more like the maxim 'feel what you feel' – I feel it, embrace it, work with it and move with it as best I can, oftentimes leading to transformation
- How did you come to be interested in mindfulness
    - I started meditation during university. It was a difficult period of my life. At first I thought meditation would help with the difficulties and help me concentrate more at university. Then I kept doing it, to 'see where it goes' and found a transformative inner power.
- What do you mean by inner power?
    - Well I just had some powerful inner 'subjective' experiences which were very deep and profound to me… visions…
- Why are you interested in studying mindfulness with children?
    - In mental health, there is a big push to look at ways to prevent the onset of adult mental illness and promote health and wellbeing in our population. One powerful way to do this is to look at ways to promote health and wellbeing in children through our school system, as mental illness is increasingly seen as 'developmental' in nature, that is, the origins are in childhood. I saw mindfulness as a tool that could be taught to children which was backed up by appealing scientific evidence. I thought that this would be a good thing to invest my time in. I also thought coming to Oxford would provide me with a great opportunity for personal growth.
- What prejudices do you think you might bring to an interview process?
    - I think firstly the mechanical difficulties of running a focus group for the first time will be a challenge. Secondly, in my professional practice as a psychiatry trainee, I am trained to use 'reflective listening' and analysis as a way of helping people with their ailments. I am aware that analysing pupils' responses during an interview is not correct practice for qualitative science, as this reduces their statements too quickly and closes down conversation – the aim is to allow as much of the participants life world & meaning to emerge as possible without implying my own analysis too early. Similarly, my desire to 'help' society, 'help' the world is a potential bias towards my interview style and interaction with the pupils.
- What are you looking for? What do you think you'll find?
    - What I think will happen is the young people will start talking about difficulties in their life – not specifically around the .b course. For instance, this might be about family members or friends. I hope to explore these difficulties and explore how, if at all, they may be related to the mindfulness course in terms of insight, understanding, change, and acceptance. I also hope to explore in more detail any responses the pupils do give me about their experience, so as to move past any reporter bias or repeating taught information. I want to see if pupils do really connect mindfulness practice with personal insight and change.

Appendix 5: Information sheets, consent and assent forms:

- Pupil info and assent
- Parent info and consent
- Headteacher info and consent
- Classroom teacher info sheet and consent

How do young people experience and navigate a classroom based mindfulness program?

INFORMATION SHEET FOR YOUNG PEOPLE AGED 11 TO 15

Ethics Approval Reference: P51869/PE001

We are inviting you to join in a research study. We are a group of researchers from the Mindfulness and Resilience in Adolescence (MYRIAD) project, based at the University of Oxford in the Department of Psychiatry.

Before you decide if you would like to join in, it's important to understand what the study is about, why we're doing it and what it would involve for you. Please read and think about this leaflet carefully. Please feel free to talk to your family, friends, or the researchers about it if you want.

If anything isn't clear or you have more questions you can ask your parents/carer to give us a call and we can discuss it with you and your parents/carer.

Why are we doing this research?

The topic we are researching is how students experience and understand what happens to them during a .b mindfulness course*. We are really interested to know how each person experiences this program individually – what it is like for you. This is really important so that we can understand more about how mindfulness affects young people.

Why have I been invited to take part?

We are inviting you to take part because you are a young person, aged between 11 and 15 years old whose school is planning to teach the .b mindfulness course in the next few months.

We are inviting young people from up to ten schools to take part.

Do I have to take part?

No - It is up to you. We will ask you to sign a form to say that you agree to take part (an assent form). We will give you a copy of this information sheet and your signed form to keep. Please note that there are two separate parts to this study, so you can choose to agree to participate in one part, both

parts, or not to participate at all – it's up to you. You are free to stop taking part at any time during the research without giving a reason, by telling the researcher. If you decide to stop, we will use the information we have already collected from you, unless you ask us not to.

What will happen to me if I take part?

Your head teacher and classroom teacher have arranged for you to participate in a .b classroom mindfulness course* (even if you don't choose to participate in this study). The first part of the study will involve two members of our team watching your class and taking notes on paper as you participate in these sessions. This will be for each lesson of the course – which is once per week for ten weeks in total. We will also record your class with a video camera during these sessions so we can watch it again later. We would also like you to keep a diary of your experiences during the course.

The second part of our study is to invite you to come and talk with us in a small group with other pupils, so that we can chat with you and the group about your experiences during the .b mindfulness course*.

We plan on doing three interviews in total – one at about 5 weeks after starting the course, and then another one at the end of the course, and another one shortly after you finish the course. The first two interviews will be in small groups, and the interview will be one-on-one just one researcher. Each interview will take about ½ hour to 45 minutes and it will be conducted sometime during your normal school day. We will record the discussion on a voice recorder so we can listen to it later.

Since you will be doing the .b mindfulness course as part of your school curriculum, there will be no additional work for you if you agree for us to watch you and your class during the weekly sessions. If you agree to being interviewed, the only additional amount of work that you will have to do is come and talk with us during the interview sessions. There will be no additional homework or other tasks you have to do.

If you choose to not take part in the first part of the study, you will still do the .b course as it is part of your curriculum. However, you will sit in a part of the room that is out of our view and not visible on the video camera. If you choose to not take part in the interviews, you will not be interviewed at all. You can decide whether or not to take part in each part of the study separately.

What happens to the results of the study?

Results for each young person taking part will be kept strictly confidential. Only a number will be used to identify you, and I will keep all the information locked in filing cabinet, in an office, or in a

password protected file in a secure network area on our university computer system. When in transport, the information will be kept in a secure box. The anonymised audio recordings will be transcribed by a professional transcribing company – which means you can only withdraw from the study up until this point. The audio and video recordings will be destroyed immediately once analysed, but the anonymised transcripts may be kept for a period of up to ten years. The research team will have access to the data during the analysis & write up phase, and during the 10 year storage the data may be accessed by other research teams. The professional transcribing company will access the data during their stage of input.

One of our team members is studying for a degree called a Master of Science by Research in Psychiatry and if you agree to participate in this study, the research will be written up as part of that piece of work.

We also aim to publish our findings in scientific journals, but this may be two to three years from the end of the study.

All research data and records will be stored for at least 3 years after they are published or made available to others to look at.

What are the advantages / disadvantages of taking part?

By taking part in this study, you will get to see how research and real-world science works. You may also understand a little more about how mindfulness affects you and how you might be able to use it in your life. When you are talking with us in the interviews, it may be difficult for you to describe exactly what was happening to you during the mindfulness exercises, or it might feel private. Don't worry – you do not have to tell us anything you do not want to. It will be up to you what you describe. If you are not sure exactly how to describe something just do the best you can. By taking part in the interviews you might understand more about how mindfulness works within you.

Will anyone else know I'm doing this?

We will keep your information private. This means we will only tell those who have a need or have a right to know, such as the research team and your parents/carer. Wherever possible, we will only share information that has your name and address removed. If you tell us about an experience which is particularly difficult or challenging, we may have to tell your classroom teacher or another person at your school. We would only do this if we were worried that you were at risk of serious harm in order to make sure you were safe. The only other people who will know what you are talking about during the interviews will be the other pupils in your group. Before we start the interviews we will talk about the 'rules' for the groups and make sure that everyone agrees to keep the discussions private.

What if I don't want to take part in the research anymore?

Just tell your parents/carer and the people carrying out the research that you don't want to take part. You don't have to give a reason and no one will be annoyed with you. It is YOUR choice. Please note that you can only choose to not take part up until the audio recordings are transcribed – after this point we will have to use them because they will be anonymised.

Who is organising and funding the research?

The research is organised by Dr Edward Miller of Oxford University, who is a Masters of Psychiatry student. The study is partially funded by a Wellcome Trust Strategic award.

Who has reviewed the study?

Before any research involving people can start, it has to be checked by a Research Ethics Committee to make sure that it is OK for the research to go ahead. This study has been approved by the University of Oxford Central University Research Ethics Committee.

What if there is a problem or something goes wrong?

Please tell us if you are worried about any part of this study, by contacting the team (classroom.mindfulness@psych.ox.ac.uk). You may also talk to your teacher/parent/carer who will let the research team know. If you are still unhappy or wish to make a complaint, either you or your teacher/parent(s)/carer(s) can contact the chair of the Research Ethics Committee at the University of Oxford (Chair, Medical Sciences Inter-Divisional Research Ethics Committee;
Email: ethics@medsci.ox.ac.uk; Address: Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD).

Contact details

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

MYRIAD Research Group

Department of Psychiatry

Warneford Hospital

Email: classroom.mindfulness@psych.ox.ac.uk

Thank you for reading this – please ask any questions if you need to.

*Name of program to be changed to match name used by school

ASSENT FORM FOR CHILDREN UNDER 16

How do young people experience and navigate a classroom based mindfulness program?

Child/Young Person (or if unable, parent/researcher/teacher on their behalf) to circle all they agree with:

- Has somebody else explained this project to you?

  Yes/No
- Do you understand what this project is about?

  Yes/No
- Have you asked all the questions you want?

  Yes/No
- Have you had your questions answered in a way you understand?

  Yes/No
- Do you understand it's OK to stop taking part at any time?

  Yes/No
- Are you happy to take part?

  Yes/No

- Are you happy to participate in part one of the study (to be on video and observed during the .b course)?

  Yes/No
- Are you happy to participate in part two of the study (to be interviewed and for your voice to be recorded)?

  Yes/No

If <u>any</u> answers are "no" or you don't want to take part, that's OK! No one will be cross with you.

If you <u>do</u> want to participate in the part(s) you have selected above, please write your name below

Your name _____

Date _____

The researcher who explained this project to you needs to sign too:

Print Name _____

Sign _____

Date _____

Thank you!

How do young people experience and navigate a classroom based mindfulness program?

PARTICIPANT INFORMATION SHEET FOR PARENTS / GUARDIANS

Ethics Approval Reference: P51869/PE001

As you may know, your child's school is in a .b mindfulness course*. We are writing to invite your child to be part of a research study led by the MYRIAD Research Team at the University of Oxford, investigating how they experience this course. We very much hope you would like your child to take part, but before you decide, it is important that you understand why the study is being done and what it will involve.

What are we trying to find out?

This project is looking at what young people experience whilst undertaking the classroom .b mindfulness course. We know that in adults, practicing mindfulness has been associated with a number of potential benefits. This has led us to want to know more about how mindfulness may help young people. To do this, we need to know how young people experience the mindfulness program. We hope that by doing this, we will better understand both how mindfulness affects young people, and how young people 'use' mindfulness in their lives.

More information about the project can be obtained by contacting the research team (contact details overleaf).

What will happen if my child takes part?

There are two parts to this study. The first will involve a researcher coming to the class during each session of the 10 week .b mindfulness course. The researcher will observe participating members of the class and the teacher as they follow the course, and will take written notes as well as record participating members of the class on a video camera to support analysis later on. We would also like participating pupils to keep a diary of the experiences during the course. The second part of the study involves the researchers interviewing participating pupils about their experiences during the program. We would like to interview small groups of pupils together mid-way through the course, and at the end of the course, to gauge the young people's impressions of the course. We will also speak to young people individually at the end of the course, if they agree, to find out about their experiences and opinions in more detail.

Young people will be seen in a quiet area near their classroom. Each interview session will last between 20 and 40 minutes. Interviews will be scheduled at a time that is convenient for the school and the pupils.

The discussions with the young people will be recorded using an audio recorder, so that the content of the discussions can be analysed scientifically later on. Your child will be made completely anonymous in the transcripts of the recordings and the recordings themselves will be stored securely and destroyed once analysed.

Both you and/or your child can decline to take part in either part one, part two, or both parts of the study. If either you or your young person declines to participate in part one, your child will still do the .b course, as it is part of their usual curriculum; however they will be seated out of view of the researcher and the video camera, and will not be recorded or observed during the session. If either you or your young person declines to participate in part two, your child will not participate in the group or individual interviews.

What happens to the results of the study?

Results for each participating young person will be kept strictly confidential. A code number will be used to identify young people participating in the interviews, and all information and results will be transported in a secure transport box and then stored in a locked cabinet, within an office in the University. Audio recordings will be transcribed by a professional transcribing company. No identifying information about participants or schools will be provided to the company and the resulting transcripts will be anonymous. This means that it will only be possible to withdraw your child from the study up until this point. The audio and video recordings will be destroyed immediately once analysed, but the anonymised transcripts may be kept for a period of up to ten years. The research team will have access to the data during the analysis & write up phase, and during the 10 year storage the data may be accessed by other research teams. The professional transcribing company will access the data during their stage of input.

Some of the data from the research project, once completed, will be written up as a thesis. On successful submission of the thesis, it will be deposited both in print and online in the University archives, to facilitate its use in future research. The wider findings from the study, as well as the findings contained in the thesis will also probably be published with open and unrestricted access - meaning available to every internet user who is interested in this topic.

We also aim to publish our findings in scientific journals, but this may be two to three years from the end of the study. Furthermore, anonymised versions of the data may also be used with 3rd party groups (such as research groups based overseas) for further scientific analysis and use.

<u>Research data (not sensitive/personal data) will be kept securely for a minimum of three years according to University Policy.</u>

Statement of any benefits or risk

Young people who participate in this study will have the benefit of being able to discuss with a trained researcher their experiences during the .b program. This may further their understanding of how mindfulness works and allow them to reflect on how they might use it in their lives. They will also get

the opportunity to see a high quality research project from the University of Oxford in action, which will give them insight into how the scientific process works.

The young people will discuss their personal experience with the researcher, and with other students in the group. This means they will be invited to discuss the feelings, emotions and any thoughts or experiences that they had during the program. If a young person describes a difficult experience during the interviews, either related to the program or to any other situation they describe, they will have the chance to talk about it openly in this context. If they need further assistance with an issue, the classroom teacher and a school support person will be notified.

Who is conducting this research?

The research project is organized by the MYRIAD Research Team, who are based in the Department of Psychiatry at Oxford University. This study has received ethics clearance through the University of Oxford's Central University Research Ethics Committee, P51869/PE001.

What if there is a problem?

If you have a concern about any aspect of this project, please speak to the relevant researcher (Dr Catherine Crane, email Catherine.Crane@psych.ox.ac.uk) who will do her best to answer your query. The researcher should acknowledge your concern within 10 working days and give you an indication of how he intends to deal with it. If you remain unhappy or wish to make a formal complaint, please contact the chair of the Research Ethics Committee at the University of Oxford (Chair, Medical Sciences, Inter-Divisional Research Ethics Committee; Email: ethics@medsci.ox.ac.uk; Address: Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD). The chair will seek to resolve the matter in a reasonably expeditious manner.

What should I do next?

Please fill in the enclosed form and return it to your child's class teacher if you would like them to take part in this study. Please remember that you may withdraw at any time until the recordings are transcribed, without penalty and without giving a reason by notifying the researcher. If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

MYRIAD Research Group

Department of Psychiatry

Warneford Hospital

Email: classroom.mindfulness@psych.ox.ac.uk

*The exact name of the course will be changed depending on how the school terms the course

PARENT/GUARDIAN CONSENT FORM

CUREC Approval Reference: P51869/PE001

How do young people experience and navigate a classroom based mindfulness program?

- Your child's school has agreed to take part in a study run by Oxford University looking at how young people experience and navigate a classroom .b mindfulness program.
- If your child takes part, two researchers would first come and observe the lessons taking place and second interview your child about their experiences during the program.
- You can consent, or decide not to consent, to your child participating in each of these two parts of the study.
- If you choose not to consent to the first part, your child will still participate in the weekly sessions (as part of the school curricula) but they will be seated in a position out of view of the researchers and hence not observed or video recorded.
- If you choose not to consent to the second part of the study, your child will not be interviewed at all.
- You can also choose to not consent to either part of the study.
- **Please fill in the form below and return it to your child's class teacher as soon as possible to indicate whether or not you are happy for your child to participate in each of the parts of the study.**
- To find out more about the study, please read the attached information sheet. You can also e-mail us at classroom.mindfulness@psych.ox.ac.uk, or call 01865 613142 if you have any questions.

- - - -

will have access to the data, how it will be stored and what will happen to the data at the end of the study. I understand that participation is voluntary and that my child and I are free to withdraw at any time, without giving any reason and without my child's education being affected in any way. I understand how to raise a concern or make a complaint.

Consent:

I agree for my child to participate in the first part of the study (to be observed, to keep a diary, and to video recorded during the .b course)	Yes		No	
I agree for my child to participate in the second part of the study (to be interviewed and audio recorded about their experiences of the .b course)	Yes		No	

Name of parent/guardian: _____

Signature: _____ **Date:** _____

Name of researcher: _____

Signature: _____ **Date:** _____

If you would like to be notified of the outcomes of the study, please fill in your email address:

_____

Dear [Head teacher name],

How do young people experience and navigate a classroom based mindfulness program?

We are writing to enquire about whether your school might be interested in participating in a research project. The project, run by the MYRIAD (mindfulness and resilience in adolescence) research group, based at the Department of Psychiatry, University of Oxford, is exploring the types of experiences pupils have whilst undertaking a schools based mindfulness programme. We are contacting you because we understand that your school will be delivering a .b mindfulness course in the near future and we wanted to invite your school to participate in this research project.

In participating schools, pupils would follow the .b course as normal. In order to find out more about young people's experiences of the course, the first part of the study would involve one of our research teams coming to the school each week and observing the classroom and taking written notes whilst the .b lesson takes place. We will also record each session with a video camera so that the sessions can be analysed later on. We will only observe and make written notes on the responses of students who have both assented and whose parents have agreed that they may take part in the study. We would also like students to keep a written diary of their experiences during each week of the course.

During the course, and at the end, we would also interview students who agree (and whose parents agree) to participate, about their experiences during the course. This is the second part of the study. Finally we would like to interview the classroom teacher to find out more about how they viewed the experiences of the students. These interviews would be scheduled at a time that is convenient to you and your staff.

Parents or pupils can decline to take part in either part one, part two, or both parts of the study. If either declines to participate in part one, pupils will still do the .b course as it will be part of their usual curriculum, however they will be seated out of view of the researcher and the video camera, and will not be recorded, nor will they participate in the interviews. If either declines to participate in part two, the pupils will be observed in the class but will not be interviewed either individually or in groups.

By participating in the research, your school would be contributing to a project that will deepen our understanding of the effects of mindfulness on children and

young people, the process of learning mindfulness, and how it may contribute to the mental health of children and young people.

To summarise, the commitment from the school would be to allow a researcher into the school to observe and take written notes of each lesson of the 10 week .b course. We will also audio-record interviews with students, which would be conducted both individually and in small groups, as well as interview and audio record the teacher. We anticipate the interviews would each take approximately 20 - 45 minutes (as detailed in the information sheets).

Oxford University has strict ethical procedures on conducting ethical research with teachers and young people, consistent with current British Educational Research Association guidelines. According to these guidelines, the school would firstly give consent for the research to occur, followed by the pupils and their parents. These consents would enable a researcher to observe the class during the .b lessons, take observational notes, and record the sessions. We would also seek consent from parents/guardians and the assent of students to conduct the interviews. Copies of the information sheets and consent/assent forms are included with this letter. Completed forms could be returned straight to our research office. Throughout the research, students, parents and guardians will be able to withdraw their consent to participate at any time.

Our research group regularly conducts research in schools and follows a standard protocol to manage risk and safeguarding issues. All staff members visiting schools would have a recent enhanced DBS (formerly known as CRB).

All participants, including students, teacher(s) and the school, would be made anonymous in all research reports. The raw data collected (e.g. audio recordings, video) would be kept strictly confidential and anonymised for analysis, and all recordings would be stored securely and then destroyed at the end of the research period. Anonymised transcripts of the interviews would be stored for a period of up to 10 years, and would potentially be made available for other research purposes to maximise the scientific value of the research and ensure research findings are open to appropriate independent scrutiny.

During this project, your school would be participating in a high quality research project with the University of Oxford, and pupils would be able to experience this scientific process first hand. We would be happy to talk to students from your school about the research or participate in research Q&A sessions or similar. The school and all participating pupils would receive a certificate to record their participation in the research study.

If you are interested in taking part in the study, or would like some more information about what is involved, please do not hesitate to contact me. The information sheet for classroom teachers and for parents and pupils is also attached to this letter. Whether or not you feel it would be appropriate for your school to participate, I would be grateful if you would complete the pro-forma below, and return it to me in the stamped addressed envelope enclosed in this letter.

Thank you for your time and attention. We look forward to hearing from you.

Yours sincerely,

Dr Catherine Crane and Dr Ed Miller, on behalf of the MYRIAD Research Team

How do young people experience and navigate a classroom based mindfulness program?

MYRIAD Research Team

Oxford University Department of Psychiatry

[School name]

[School address]

[Head teacher name]

☐ We do not wish to participate in this project.

☐ We would like to find out more about this project.

☐ We would like to take part in this project.

If you would like further information, or are interested in taking part, please give the name of a contact person for your school, and details of the best way to contact him or her.

Contact name: _____

Contact email: _____

Contact telephone number: _____

Please return this form in the stamped addressed envelope enclosed with this letter.

Thank you for your help.

How do young people experience and navigate a classroom based mindfulness program?

Consent Form for Headteachers

This research project is investigating how young people experience and navigate a classroom based mindfulness program. Thank you for your interest in taking part in this project.

PART A
On the next page, please **initial** beside each statement to indicate that you have read the statement, and agree with its contents. If you have any questions about these statements, or the information provided in the accompanying information sheet, please feel free to contact the project team.

Although by consenting to this project you are agreeing that your school can take part in this project, it is important to remember that:

- You can decide to stop any element of the project at any point.
- You need not answer questions that you do not wish to.
- Anything you tell us will be absolutely confidential. Your name will be removed from the information and it will not be possible to identify anyone from our reports on the project. The only circumstances in which information would be shared would be in the rare event that it was judged that you or someone else was at risk of serious harm. In this instance, we would only share information essential to ensure safety and any information sharing would be discussed with you wherever possible. Further information about information sharing, and its limits, is provided in the project information sheet.
- Audio and video recordings of your teachers delivering the course to your pupils will be stored securely and identified by a number code. Any images of pupils' accidently captured on film will be removed once the videos have been received by us, and prior to any analysis. Audio and video recordings of your teachers delivering the course to your pupils will be stored securely and identified by a number code.
- Likewise, when teachers and young people in your school consent or assent to participate in the project, they also remain free to withdraw at any time.

PART A continued

	Initials
I confirm that I have read, and understand, the Information Sheet for Headteachers (dated 12/07/17 version 1.1) for the above project. I have had the opportunity to consider the information, ask questions and have had any questions I have asked answered satisfactorily.	
I understand that the participation of my member(s) of staff, and of my school, is voluntary. I understand that my member(s) of staff and my school may withdraw from the project without penalty, at any time, by advising the researchers of this decision.	
I agree to my member(s) of staff being recorded on video delivering the mindfulness syllabus to their pupils. I understand that this video will be edited to remove any images of pupils in a timely manner, following receipt by the research team. I understand that videos will be rated by a member of the research team, but that no other identifying information will be provided to these raters alongside the video and audio recordings.	
I understand that all project data provided by my member(s) of staff and pupils will be identified using only number codes.	
I understand that all information will be kept strictly confidential, within the limits of UK law, except in the rare event in which it is judged that someone is at risk of serious harm and that in these instances information will be shared.	
I understand that relevant data collected during the project may be looked at by individuals from the research team, as well as by responsible members of the University of Oxford, for the purpose of audit and monitoring, and agree to this where it is relevant to the research.	
I understand that this project has been reviewed, and received ethics clearance through, the University of Oxford Central University Research Ethics Committee.	
I understand how to raise a concern, and make a complaint.	

I agree that the project team can make every reasonable effort to contact me, and my member(s) of staff whilst they, and the school, are participating in the research.	
I understand how the research data will be stored and reported, and what will happen to it at the end of the study.	
I agree to my member(s) of staff, and school, taking part in the project.	

PART B

Please sign, date, and print your name below. A member of the research team will also do so when they receive this form.

Headteacher

Please write here to confirm you consent to your school taking part in the trial

Date: _____

Print name in block capitals: _____

Project researcher

Checked by researcher (please insert name): _____

Date: _____

How do young people experience and navigate a classroom based mindfulness program?

PARTICIPANT INFORMATION SHEET CLASSROOM TEACHER

Ethics Approval Reference: P51869/PE001

We are writing to you in relation to the .b mindfulness course* that we understand you will be delivering to your class. We would like to invite you to be part of a study investigating how the pupils in your class experience this course. We very much hope you would like to take part, but before you decide, it is important that you understand why the study is being done and what it will involve.

What are we trying to find out?

This project is looking at what young people experience whilst undertaking the classroom .b mindfulness course. We know that in adults, practicing mindfulness has been associated with a number of potential benefits. This has led us to want to know more about how mindfulness may help young people. To do this, we need to know how young people experience the mindfulness program. We hope that by doing this, we will better understand both how mindfulness affects young people, and how young people 'use' mindfulness to help them in their lives.

As part of this process, we would like to conduct interviews with the pupils in your class about what they experienced during the course. We will seek consent from the head teacher of your school, the pupils and their parents/guardians in order to do this. We would also like one of our researchers to sit in on each .b session (each week for the 10 weeks) and take written notes concerning how the pupils are responding and interacting with the program. We would video record each session so that if we miss anything, this can be analysed later on.

Finally we would like to interview you, the classroom teacher, about your experiences of how the pupils react to the program. We also need your permission for us to observe you and video record you as you deliver the .b course to the pupils. These two things are what we are seeking your consent for, and what this information sheet is detailing.

More information about the project can be obtained by contacting the research team (contact details overleaf).

What will happen if I take part?

There are two parts to this study. The first will involve a researcher coming to the class during each session of the 10 week .b mindfulness course (one session per week). The researcher will observe the class and the teacher (you) during participation in the course, and will take written notes as well as record the class on a video camera to support analysis later on. The second part of the study involves two researchers interviewing the pupils about their experiences during the program. In the first stage, a group interview ('focus group') will be conducted. This will occur approximately half way through the course. We will then conduct a second group interview at the end of the course, as well as speaking to each pupil individually to get their more detailed feedback. The interviews will involve discussions about what the young person experienced during the course, what helped them or hindered them in using the practices at home and in daily life and so on.

Young people will be seen in a quiet area near their classroom. Each interview session will lasts about 20-40 minutes. The first group interview will be mid-way through the course and the second group interview at the end of the course, with individual interviews happening shortly thereafter (depending on what is most convenient for the school and the pupils).

Parents or pupils can decline to take part in either part one, part two, or both parts of the study. If either declines to participate in part one, the pupils will still do the .b course as it is part of their usual curriculum, however they will be seated out of view of the video camera, and will not be recorded. The researcher will also not make any notes about the contributions or responses of pupils who are not participating in the study. If either declines to participate in part two, the pupils will not participate in focus groups or be interviewed individually.

We would like to interview you, the classroom teacher, at the end of the course about your views of how the pupils experienced this course. This will be a one-on-one interview which will be audio recorded so it can be analysed scientifically later, and it is anticipated that this interview will take about 30-45 minutes.

What happens to the results of the study?

The information you disclose to us will be kept strictly confidential and you will be de-identified. Results are kept and transferred in a secure transport box to which only the research team will know the combination. After the project is finished, the results will be prepared for publication in peer review journals. The anonymised audio recordings will be transcribed by a professional transcribing company – which means you can only withdraw from the study up until this point. The audio and video recordings will be destroyed immediately once analysed, but the anonymised transcripts may be kept for a period of up to ten years following publication of study reports.

Some of the research data gathered in this project will be written up as a thesis. On successful submission of the thesis, it will be deposited both in print and online in the University archives, to facilitate its use in future research. The thesis will probably be published with open or unrestricted access - meaning available to every internet user who is interested in this topic.

We also aim to publish our findings in scientific journals, but this may be two to three years from the end of the study. Furthermore, anonymised versions of the data may also be used with 3rd party groups (such as research groups based overseas) for further scientific analysis and use.

All research data (not sensitive/personal data) will be kept securely for a minimum of three years according to University Policy.

Statement of any benefits or risk

We do not anticipate that there will be any risk to you in taking part in this study.

We hope that by doing this you may gain a better understanding of how the .b mindfulness course may affect your class.

Who is conducting this research?

The research project is overseen by Professor Willem Kuyken, Professor of Clinical Psychology at the Oxford University Department of Psychiatry. This study has received ethics clearance through the University of Oxford's Central University Research Ethics Committee P51869/PE001.

What if there is a problem?

If you have a concern about any aspect of this project, please speak to the relevant researcher (Dr Edward Miller: Edward.miller@psych.ox.ac.uk or his supervisor Dr Catherine Crane Catherine.crane@psych.ox.ac.uk) who will do their best to answer your query. The researcher should acknowledge your concern within 10 working days and give you an indication of how he intends to deal with it. If you remain unhappy or wish to make a formal complaint, please contact the chair of the Research Ethics Committee at the University of Oxford (Chair, Medical Sciences, Inter-Divisional Research Ethics Committee; Email: ethics@medsci.ox.ac.uk; Address: Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD). The chair will seek to resolve the matter in a reasonably expeditious manner.

What should I do next?

Please fill in the enclosed form and return it to the address below if you would like to take part in this study. Please remember that you may withdraw at any time up until the transcription of the data, without penalty and without giving a reason by notifying the researcher. If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

MYRIAD Research Group

Department of Psychiatry

Warneford Hospital

Email: classroom.mindfulness@psych.ox.ac.uk

Thank you once again for taking the time to consider participating in this study.

*The exact name of the course will be changed depending on how the school terms the course

How do young people experience and navigate a classroom based mindfulness program?

Consent Form for Participant Teachers

This research project is investigating how young people experience and navigate a classroom based mindfulness program. Thank you for your interest in taking part in this project.

PART A
Please **initial the box** beside each statement to indicate that you have read the statement, and agree with its contents. If you have any questions about these statements, or the information provided in the accompanying information sheet, please feel free to contact the project team.

Although by consenting to this project you are agreeing that you will take part, it is important to remember that:

- You can decide to stop any element of the project at any point.
- You need not answer questions that you do not wish to.
- Anything you tell us will be absolutely confidential. Your name will be removed from the information and it will not be possible to identify anyone from our reports on the project. The only circumstances in which information would be shared would be in the rare event that it was judged that you or someone else was at risk of serious harm. In this instance we would only share information essential to ensure safety and any information sharing would be discussed with you wherever possible. Further information about information sharing, and its limits, is provided in the project information sheet.
- Audio and video recordings of you delivering the course to your pupils will be stored securely and identified by a number code. Any images of student's accidently captured on film will be removed once the videos have been received by us, and prior to any rating.

PART A continued

	Initials
I confirm that I have read, and understand, the Information Sheet for Participant Teachers (dated 10/07/17 version 1.0) for the above project. I have had the opportunity to consider the information, ask questions and have had any questions I have asked answered satisfactorily.	
I understand that my participation is voluntary. I understand that I may withdraw from the project without penalty, at any time, by advising the researchers of this decision.	
I agree to audio recording and/or videoing myself delivering the mindfulness syllabus to my students. I understand that this video will be edited to remove any images of students in a timely manner, following receipt by the research team. I understand that videos will be rated by a member of the research team and in some cases also by an independent assessor, but that no other identifying information will be provided to these raters alongside the video and audio recordings.	
I understand that relevant data collected during the project may be looked at by individuals from the research team, as well as by responsible members of the University of Oxford, for the purpose of audit and monitoring, and agree to this where it is relevant to the research.	
I understand that personal data will be stored confidentially, and will be identified using only a unique number code.	
I understand that all information will be kept strictly confidential, within the limits of UK law, except in the rare event in which it is judged that I or someone else is at risk of serious harm.	
I understand that this project has been reviewed, and received ethics clearance through, the University of Oxford Central University Research Ethics Committee.	
I understand how to raise a concern, and make a complaint.	

I understand how the research data will be stored and reported, and what will happen to it at the end of the study.	
I agree to take part in the project.	

PART B
Please sign, date, and print your name below. A member of the research team will also do so when he/she receives this form.

Participant teacher

I agree to take part in the project

Date: _____

Print name in block capitals: _____

Project researcher

Checked by researcher (please insert name): _____

Date: _____

Appendix 6: Script for focus group

Hi everyone,

Thank you for being here today and participating in this study.

My/our (change depending on number of interviewers) names are …. and we will be talking to you today about your experiences of this .b mindfulness course

We will be asking you some questions and then we would like to have a conversation with you around what you have to say. We mainly want to know what you have to say so a lot of the time we will be listening and not saying anything.

Everything we talk about will be recorded on this voice recorder so that we can listen to it again later on and analyse it scientifically. Everything we talk about will be kept confidential, which means that the only people who will know it is you talking are us, the interviewers. When we analyse the data and put it in a publication, the data will be anonymised, so no one will know it is you. The recordings will be destroyed after they are transcribed into words.

The only time we will need to talk to someone else about what you have said to us today is if you tell us something that we think is serious enough that someone else needs to know – for example, you might be in danger or at risk. If we think this is the case, we will talk to you about it, but we might also have to let someone else know, like a teacher or another member of staff.

Just so that you know, you don't have to answer any questions if you don't want – it's OK to just sit in silence.

Are there any questions?

[Answer any questions that may arise]

OK, let's begin.

GROUND RULES

☐Please respect this space and allow people to be open and honest - everyone's opinion is useful whether it's the same or different

☐It is OK to remain silent if you do not wish to speak

☐Please don’t laugh or tease others

☐Please don't speak over others (and sometimes we'll stop you and move on) but it is OK to talk with others about what you think

☐What is said in the group is private – please do not repeat what others have said outside this group

Appendix 7: Interview questions

- Focus group 1
- Focus group 2
- Individual interview
- Teacher interview

Research questions (Focus Group One)

Double Check:

1. Assent form signed by pupil and researcher
2. Parental consent
3. Say script
4. Discuss ground rules

Topic guide

- Intention
- General Experience
- Round-Up

Student Questions:

Intention

- Tell us what you've been doing in your .b course so far (icebreaker)
    - Prompts (factual):
        - When do you do it
        - How many classes have you done
        - How long do sessions last
        - What do you do in each session
- What did your teachers tell you were the reasons for doing a .b course in school?
    - Prompts:
        - Did you agree or not agree with that explanation based on your experience?
        - What are your understandings of why you are doing this course?
- What is mindfulness meditation to you?
    - Prompts:
        - What do you think it means?
        - Why do you think people do it?
-

General Experiences

What did you (have you) experienced during the course (so far)?

- Can you tell me more about that?
- Any aspect of the course that stood out to you?

Did you notice any particular thoughts, feelings, emotions and body sensations during the *mindfulness exercises* (use student's own words)?

How did you find doing the meditation exercises at home during the week?

- Did you manage to do any?
- If yes, what helped you do that?

- If no, what got in the way?

Did people at home know you were doing the course? Did you talk about it? What did they think about it?

Round - Up

Is there anything else about your experiences of the course, that we haven't discussed, that you would like to mention?

Is there anything you would say to another student who is about to start a .b course at their school?

General roundup, tell them how very helpful their reflections will be, thank them for being open and sharing their experiences, go over how the data will be used again so they are sure, check they are still comfortable with that having now gone through the interview, remind them that they can ask at any time if they have questions and remain free to withdraw. Provide them with debriefing information sheet which also has this info and the researcher contact details. Follow-up any safeguarding concerns immediately.

Research Questions (Focus group Two)

Double Check:

1. Assent form signed by pupil and researcher
2. Parental consent
3. Say script
4. Discuss ground rules

Topic guide

- General experience
- Explore positive experiences in more detail
- Explore difficult and negative experiences

Student Questions:

<u>General Experiences</u>

- What are your reflections of the course?
    - Prompts
        - What were the highlights/parts of the course that stood out for you?
        - What parts were difficult?
        - What parts didn't you like?
        - Were you able to keep to the home practice?

- Tell us if you learnt anything about your thoughts or your feelings during this course?
    - Prompts:
        - What sort of thoughts did you notice you were having?
        - What sort of feelings or emotions did you notice you were having?
        - What sort of body sensations did you notice you were having?
        - Were there any experiences you liked?
        - Were there any experiences you didn't like, were difficult or uncomfortable?

- <u>Positive Experiences</u>
    - You mentioned that during the course you experienced x – *neutral to positive experience* [x – whatever student's exact words] - can you tell us more about that?
        - Prompts:
            - What do those experiences mean to you?
            - What did you learn from that experience?

    - Did you experience *anything [else]* during the course that was interesting, helpful, or positive in some other way (phrase depending on responses to question above)?

- Challenging Experiences
    - You mentioned that during the course you experienced x – neutral to *potentially* 'negative' experience [x – whatever student's exact words] - can you tell us more about that?
        - Prompts:
            - What do those experiences mean to you?
            - What did you learn from that experience?

    - Did you experience *anything [else]* during the course that was unusual, challenging or difficult in some other way? (phrase depending on responses to question above)?

- Round - Up

    - Is there anything else about your experiences of the course that we haven't discussed, that you would like to mention?

    - Is there anything you would say to another student who is about to start a .b course at their school?

Research questions (Individual interview)

Topic guide

- Context
- Exploring experience more deeply
    - Referencing experiences previously mentioned by pupil, discuss in more detail positive, negative etc
    - Use notes from pupil's journal to construct, guide conversation
- Insight
    - Explore any meaning-making processes
- Round up

Student questions:

Context

- Can you tell me about how you were feeling about life in general before doing this course?
- How were you finding school?

Exploring experiences more deeply

- You mentioned [x experiences] before. Can you tell me more about that?
- In your journal you wrote [x experience]. Can you tell me more about that?

Insight

- Did you learn anything about yourself during or because of the course?
- Did you have any experiences during the course that made you think about things in a different or new way - or 'shifted' the way you think about things?
- Do you feel like you - or your relationship with others - has changed in any way because of this course?

Round up

- Is there anything else about your experiences of the course that we haven't discussed, that you would like to mention?

Roundup, tell them how very helpful their reflections will be, thank them for being open and sharing their experiences, go over how the data will be used again so they are sure, check they are still comfortable with that having now gone through the interview, remind them that they can ask at any time if they have questions and remain free to withdraw. Provide them with debriefing information

sheet which also has this info and the researcher contact details. Follow-up any safeguarding concerns immediately.

Research questions (Teacher interview)

Ensure that consent form is completed and signed and dated (all sections initialled) by both teacher and researcher. Go over issues around confidentiality and its limits, how the data will be used, right to withdraw etc- we can produce a script for this so info is consistent and everything is covered.

Topic guide

- Intention
- General experience of students
- Positive experiences
- Difficult experiences & response
- Reflections of course from teacher perspective
- Round-Up

Teacher Questions:

Intention

- What were the main reasons you / your school decided to introduce the .b course for students?
- Did you have any particular hopes or aims for the course?

General experience of students

- How do you think the students found the course in general?
- What did you think their expectations were?

Positive experiences

- Can you describe any particular positive experiences that you think students had?

Difficult experiences

- Can you describe any particular difficult experiences that you think students had?
- Why do you think students' experiences differed?
- Can you describe how the young people responded to any difficulties they had with the course?
- Did you need to do anything extra to support any of the students through the course?

Reflections of course

- Do you have any advice or reflections that you would share with other teachers who are thinking of introducing the course for the first time?

Roundup

- Is there anything else about your experiences of the course that we haven't discussed, that you would like to mention?

- General roundup, tell them how very helpful their reflections will be, thank them for being open and sharing their experiences, go over how the data will be used again so they are sure, check they are still comfortable with that having now gone through the interview, remind them that they can ask at any time if they have questions and remain free to withdraw. Provide them with debriefing information sheet which also has this info and the researcher contact details. Follow-up any safeguarding concerns immediately.

Appendix 8: Introductory script

Introductory Script for Pupils

Hi everyone!

Thank you very much to (classroom teacher) for letting us come in and speak with you all today.

Our names are… (To be modified as plural or singular as appropriate) and we are researchers from the University of Oxford. We are here today to talk to you about some research we would like to do with you all over the next few months. We are looking to work with up to 10 classes – which is around 200 pupils – in different schools. We will talk to you first about the study and then about the assent process – this study is optional which means you and your parents can choose whether or not you take part.

Firstly, can anyone tell us what research is?

[Take statements from pupils about research]

The research we would like to do with your class is around how you all experience the .b/mindfulness course* you will be participating in over the next 10 weeks.

Can someone tell us what the .b/mindfulness course is?

[Take explanations from pupils about their understanding of the course. Affirm explanations]

So the study is us finding out, in a lot of detail, how you – individually – experience this course. We want to know what it is like for each one of you – individually – to do this practice.

In the first part of this study, we would like to come into the classroom with you all each time you do the practice and take observation notes about how you all do the practice. One of us will be sitting in the corner of the classroom and take notes during the session. We would also like to record the session on a video camera so that we can look at it later.

Does anyone have any questions so far?

[Answer any questions pupils may have]

If you choose to take part, as well as that, we will also like you to complete a small journal which you will write in both before a session and straight after a session. In the journals we would like you to record things you noticed about yourself during the week that may have been related to the course in some way?, as well as things that you noticed during the practice sessions. We will take what you have written in the journals and analyse them scientifically later on, as well as talk to you about them later on – we will talk about that process now, but before we do, are there any questions?

[Answer any questions pupils may have]

In the next part of the study we will be speaking to you directly, to find out more about your experiences of the course. We would like to do short interviews with everyone three times – the first two interviews will be at the middle and end of the course, and these will be in small groups with around 3-5 students. We will have a discussion with each group about what you all experienced when you were doing the course. There will be a third interview at the end of the course as well, but these interviews will be done one on one with a researcher, where you can talk in more detail, if you wish, about what the practice was like for you. We will record each interview on a voice recorder so we can listen back to them later on when we analyse them scientifically.

We will also be talking to … (your teacher) about how they experienced the course with you all.

Does anyone have any questions?

[Answer any questions pupils may have]

We mentioned right at the start that this study is optional, which means you don't have to participate in it. If you would like to take part, which we very much hope that you will, you will need to give your assent, and your parents will also need to give their consent for you to take part. There are some forms that we will give you later on which you and your parents will need to read and sign if you would like to participate.

You can choose to take part in being observed during each session, in handing in your journals to us and/or the interviews, or if you choose, you don't have to take part in the study at all.

Does anyone have any questions?

[Answer any questions pupils may have]

Thank you for your attention today and for talking with us about this project. We really hope you would like to participate in it and help us find out about how you experience the .b/mindfulness* practice and how affects you.

*(name changed as appropriate)

Appendix 9: Weekly diary (pre session)

Weekly diary

Please answer the below questions as best you can, in your own words.

There are no right or wrong answers – we would just like to know anything you have experienced during the .b course this week.

If you didn't notice anything in particular or didn't practice this week, that's OK – just write that down too.

(Please note that everything you write will only be seen by you and the researchers. We will only tell someone else what you write if we think you are at risk of serious harm.)

Have you used any practices from the course in your life this week – how and why?

Please write a brief comment here

Did you have any experiences when you were doing any home practices over the last week that were difficult or challenging?

Please write a brief comment here

Did you have any experiences doing any home practices over the last week that were helpful or interesting to you, or made you think about things in a different way?

Please write a brief comment here

THANK YOU SO MUCH FOR FILLING THIS IN.

It will be used to help scientific research on teaching mindfulness and to improve teaching and learning for people like you.

Weekly diary (post session)

Weekly Journal

Please answer the below questions as best you can, in your own words.

There are no right or wrong answers – we would just like to know anything you have experienced during the .b course practice just now.

If you didn't notice anything in particular, that's OK – just write that down too.

(Please note that everything you write will only be seen by you and the researchers. We will only tell someone else what you write if we think you are at risk of serious harm.)

Can you describe what this .b lesson was like for you – any thoughts or feelings?

Please write a brief comment here

Did you have any experiences this .b lesson that were helpful or interesting to you, or made you think about things in a different way?

Please write a brief comment here

Did you have any experiences this .b lesson that were difficult or challenging?

Please write a brief comment here

THANK YOU SO MUCH FOR FILLING THIS IN.

It will be used to help scientific research on teaching mindfulness and to improve teaching and learning for people like you.

Appendix 10: Observational field notes framework

Location:

Date and time:

Category	**Observations**	**Analysis**
General environment, ambience, atmosphere, 'feeling' (smell)		
Appearances, physical characteristics of setting		
Verbal behaviour and interactions; attitudes, moods		
Physical behaviour and gestures; body language		
Interactions		
How am I feeling?		

What is happening (...what is *not* happening)?

How is this happening?

How do people *understand* what is happening?