

**Mindfulness for musicians: The effects of teaching 8-week
mindfulness courses to student musicians in higher
education**

Anne-Marie Louise Czajkowski

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Abstract

Students are arriving in higher education more stressed and anxious than previously, so there is a clear benefit for institutions to provide evidence-based health and well-being interventions. Mindfulness is a widely available popular intervention, and its efficacy has been demonstrated in the clinical field and increasingly in the educational field. However, the potential benefits of teaching mindfulness to music students have not yet been explored sufficiently.

This thesis reports the effects of teaching targeted 8-week mindfulness courses to singers and instrumentalists in two studies run over two years at two conservatoires and a university. Both studies used a predominantly qualitative mixed methods approach. Levels of mindfulness were measured using the Five Facet Mindfulness Questionnaire (FFMQ: Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), and a specially designed Mindfulness for Musicians questionnaire. The instrumentalists' quantitative study was quasi-experimental; the singers' study utilised controls and randomised controls. Qualitative methods comprised of semi-structured interviews for both studies, and the singers' study included longitudinal interviews, an anonymous diary, and a teachers' blind study.

Quantitative results showed increased levels of mindfulness among vocal and instrumentalist participants over the interventions. Participants reported a greater ability to learn instrumental technique, improved teacher/pupil relationships, more efficient and effective music practice, and enhanced communication skills in rehearsal and ensembles. Mindfulness-naïve vocal teachers who taught 136 students across two institutions identified

nineteen of the 31 experimental participants in the blind study. Results demonstrated predicted positive impacts on performance anxiety, but a key finding was that mindfulness was also beneficial in enhancing aspects of participants' performances, improving their experience and increasing performance enjoyment. The evidence presented in this thesis demonstrates the clear benefit of targeted mindfulness interventions in the field of higher music education. Mindfulness training enhances the whole musician both in student learning and as a preparation for professional life.

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Introduction

Mindfulness, a term that was relatively unknown 10 years ago, is now highly prevalent in modern society (Derbyshire, 2014). It has shown many beneficial effects in a variety of areas of human experience, including the clinical world (Gotink et al., 2015), and within key levels of the educational domain such as schools (Felver, Hoyos, Tezanos, & Singh, 2015) and universities (Galante et al., 2017). My experience of learning mindfulness techniques in 2006 seemed to have clear benefits for my own vocal coaching sessions and my singing in terms of learning singing technique and dealing with music performance anxiety. I also found positive effects in my vocal teaching practice and on my students. Given the lack of mindfulness training available to me when I was a student, it was a natural step to enquire about the effects of teaching mindfulness to current student singers engaged in higher education. In order to investigate further, I ran a pilot study of a targeted mindfulness course for university vocalists (Czajkowski, 2013), which was subsequently published in the *British Journal of Music Education* (Czajkowski & Greasley, 2015). I discovered that the Guildhall School of Music and Drama were also running a targeted mindfulness course for all instrumentalists, which led to my desire to evaluate the music-specific effects of this course on a wider demographic. Would they report the same effects as those found in the Mindfulness for Singers study? Would there be instrument-specific differences? At the same time, I was curious to find out if it would be possible to replicate the Mindfulness for Singers results under more stringent conditions, utilising conservatoire vocalists as well as those studying at university. In 2015 I was granted funding by the University of Leeds to

investigate these phenomena and this thesis reports the results.

Chapter 1 gives an overview of the mindfulness literature in which the studies of this PhD are situated. As there is very little previous research regarding mindfulness and musicians, the first section investigates the broader mindfulness literature in order to theorise on the possible benefits of mindfulness for musicians. The second part then explores the existing contemplative and mindfulness literature with regards to music and musicians. Chapter 2 states the research aims, and considers different theoretical and philosophical approaches with reference to existing contemplative and mindfulness research methodologies. It then explains the thinking behind the current approach, materials, and method of analysis.

Chapter 3 details the first study undertaken at the Guildhall School of Music and Drama in order to explore the effects of teaching a mindfulness course to instrumentalists. It includes the specific methodological and analytical approach used for this study, followed by the quantitative and qualitative results.

Chapters 4 to 10 detail the second study. This was undertaken to investigate the effects of teaching a Mindfulness to Singers (MfS) course to student singers at both a university (University of Leeds), and a music conservatoire (Leeds College of Music). In Chapter 4, the methodological and analytical approach and details about the Mindfulness for Singers intervention are provided, followed by a report of the quantitative results for both institutions in Chapter 5. The following four chapters report the qualitative results: an overview of the reports of general effects of the mindfulness intervention on MfS participants; accounts from student and teacher

participants of the effects of mindfulness in singing lessons; accounts of the effects of mindfulness experienced by student participants in solo, private practice, and in group rehearsals and ensemble practices; detailed effects reported by those with performance anxiety and general effects of mindfulness found in performance. Chapter 10 then provides information about the student evaluation of the course and an overall summary.

Finally, Chapter 11 discusses the findings from the two studies together, providing an overview of key findings, an evaluation of the methods used, discussion of the implications of the research, further recommendations, and over-arching conclusions.

Chapter One - Literature review

1.1 General mindfulness studies

Although mindfulness research has grown exponentially since the 1980s (Black, 2014), there are relatively few studies on mindfulness for musicians. As a result, this chapter is in two parts. In order to situate the study of mindfulness, the first part commences by considering definitions and mindfulness development followed by a discussion of the evidence for the potential benefits for musicians from research in the clinical domain, neuroscience, sport, education, and the performing arts. The second part evaluates contemplative research (e.g. meditation, yoga, and mindfulness research) involving music and musicians. As most of this research in relation to musicians has focused on music performance anxiety (MPA), this body of literature is addressed first and other areas are subsumed under the title “music education”.

1.1.1 Definition of mindfulness and mindfulness courses

The term “mindfulness” is difficult to define despite being used since the birth of Buddhism in 535BCE (Hall, 2005). Definitions are still under active discussion within both modern Buddhism and western cognitive mindfulness researchers (Hanley, Abell, Osborn, Roehrig, & Canto, 2016; Nilsson & Kazemi, 2016). On-going philosophical discussions are the norm in religious communities, but clear definitions are important in scientific research for operationalization, intervention development, study, and comparison to gather a full picture of the whole concept and produce findings (Miller & Thoresen, 2003). One reason for the problem is that mindfulness is a semantically

flexible term: a person can learn mindfulness, be mindful, practise mindfulness or take part in a mindfulness intervention (Hanley et al., 2016). Nilsson and Kazemi (2016) systematically reviewed 33 attempts to define what is understood as mindfulness through a multidisciplinary and cross-cultural search from 1993 to 2016 and discovered four major themes: awareness and attention, present centredness, external events, and cultivation. In simple terms, attention is the act of being receptive and focused and is needed for awareness. Awareness is the maintaining of focus on mental thoughts, emotions and bodily stimuli. Present-centredness is about being in the moment: the experience of mindfulness. External events refer to those aspects outside of our control, occurrences and objects in our surroundings, as one needs to be mindful in relation to something. Cultivation is the development of one's self through mindfulness and often involves learning loving kindness. To these they added a fifth theme that Buddhist scholars have argued has been absent from Western secular mindfulness definitions (Dorjee, 2010; Mikulas, 2011; Monteiro, Musten, & Compson, 2015; Purser, 2015), that of ethical mindedness. Ethical mindedness is an extension of loving kindness to the world around that may, over time, change a person's thoughts and behaviours to their social and physical surroundings. However, the definition provided by Nilsson and Kazemi as "a particular type of social practice that leads the practitioner to an ethically minded awareness, intentionally situated in the here and now" (2016, p. 190) has yet to become a commonly used definition.

The most popular definition (Black, 2010; Gu, Strauss, Bond, & Cavanagh, 2015; Shapiro, Carlson, Astin, & Freedman, 2006) coined by Jon

Kabat-Zinn is that mindfulness means “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 1994, p.4). In 1979, Kabat-Zinn devised the original Mindfulness Based Stress Reduction course (MBSR) from Buddhist meditation practices as a modern secular 8-week mindfulness course to help patients with chronic pain for which traditional medication had ceased to be effective (Kabat-Zinn, 2011). It is the basis upon which most secular Western mindfulness courses (including those in this PhD) rest; therefore his seminal “operational definition” (Kabat-Zinn, 2011, p.291) will be used throughout this thesis.

Research utilising the MBSR or derivatives are not to be confused with the mindfulness studies of Ellen Langer where one thinks about objects in a novel way (Langer, 1989) although that element is a part of MBSR courses. Her studies are from a Western cognitive viewpoint and involve no 8-week courses or particular techniques or training. Langer describes mindfulness as the opposite to mindlessness. Her definition is “a flexible state of mind in which we are actively engaged in the present, noticing new things and sensitive to context” (Langer, 2000, p.220) and her studies demonstrate the positive effects of a simple change of perspective in education, business and elderly care. Amongst the missing elements of Eastern-based mindfulness in Langer’s studies are such concepts as self-compassion or developing psychological resilience.

In 1995, Teasdale, Segal, and Williams devised a Cognitive Behaviour Therapy (CBT) derivation of MBSR, later called Mindfulness Based Cognitive Therapy (MBCT), to help prevent depressive relapse for patients with chronic depression. The MBSR and MBCT are very similar in style and structure,

consisting of 8-week courses, delivered in a group format, led by a teacher, with set home practice. They teach focused attention and open-monitoring mindfulness practices, gentle yoga poses, and include elements of psychoeducation. However, the MBCT incorporates some of the techniques from CBT and encourages participants to address ruminative thoughts and negative thinking earlier in the course (Segal, Williams & Teasdale, 2013). Conventionally, CBT teaches patients a cognitive approach to mental disorders in order to identify, verify, and apply techniques to negative mental schemas: changing the way that you think will change the way that you act. The main difference is that MBCT includes mind and body meditations that help patients develop an on-going awareness, acceptance, and non-judgmental approach to ruminative or problematic thoughts to reduce negative emotional response (Manicavasgar, Parker, & Perich, 2011). In 2004, the MBCT course became a National Institute for Clinical Excellence recommended treatment for people living with depression who had experienced three relapses (NICE, 2010), although scant countrywide availability of the course has made it difficult for general practitioners to refer their patients to it consistently (Mindfulness All-Party Parliamentary Group, 2015). This problem is currently being addressed by the UK Government, which is trying to encourage more teacher training courses for MBSR and MBCT (Mindfulness All-Party Parliamentary Group, 2015).

Other types of mindfulness-based therapies and courses have been designed since the development of MBSR. Two popular examples are Acceptance and Commitment Therapy (ACT) developed by Hayes in 1978 (Hayes, 2006) and Dialectic Behaviour Therapy (DBT) developed in the 1980s

(Linehan, 1993). ACT is based on modern behavioural psychology and has six core processes which support each other equally to target psychological flexibility: acceptance, cognitive defusion, being present, self as context, values, and committed action. Courses are usually between 10-12 sessions of an hour each and often individually targeted (Juncos & de Paiva e Pona, 2018). The philosophical underpinning is functional contextualism where functions of behaviour are viewed within their context. ACT can teach participants to become more accepting of their experiences to enable positive behavioural outcomes in accordance with participants' values (Hayes, Pistorello, & Levin, 2012). DBT was initially developed in the 1980s by Martha Linehan to treat Borderline Personality Disorder. Since then it has been developed as a treatment for other kinds of mental health disorders (Linehan, 2015). This is a type of cognitive-behavioural psychotherapy (CBT) that has a talking-based, practical, and problem-solving approach to change extreme patterns of thinking or behaviour. Individual weekly sessions often come with support available between sessions by phone and there are also longer group classes facilitated by a therapist. DBT involves learning mindfulness, interpersonal effectiveness, distress tolerance, and emotion regulation (Linehan, 2015). Both DBT and ACT utilise mindfulness and acceptance but they do this in different ways in the therapy room. In DBT, mindfulness and acceptance are behavioural skills that are taught as part of the course, but in ACT they are used to explore mental processors to deal with experiential avoidance. Mindfulness seems to have caught the current western zeitgeist because, since the development of MBSR in 1979, many mindfulness-based interventions (MBI) have developed across the world, tailored to a wide range

of populations, such as in the clinical, business, justice, and educational domains to name but a few. In these other domains, mindfulness research has been growing exponentially (Black, 2014, Kabat-Zinn, 2017) and much of that research can have a bearing on today's developing and developed musicians as students and professionals.

1.1.2 Cognitive and neural mechanisms of mindfulness

If mindfulness is to be investigated successfully, its clinical and neurobiological mechanisms need to be examined (Ivanovski & Malhi, 2007). This is, amongst other reasons, so that results of studies can be interpreted more effectively and matching types of MBI to different populations can be more appropriate (Kazdin, 2007). However, with mindfulness, as all meditation practices, it is difficult to define whether aspects such as posture, breathing or attention are mechanisms or effects (Taylor, 2001). Nevertheless, various theoretical models have been proposed (Baer, 2003; Brown, Ryan, & Creswell, 2007; Hölzel et al., 2011; Shapiro et al., 2006).

Baer (2003) suggested that certain mechanisms of mindfulness could lead to reduction of symptoms and changes in behaviour for those with mental health problems. For example, exposure (to negative sensations) could reduce pain symptoms and associated psychological distress and acceptance of a primary suffering could change orientation to pain and mental symptomatology. Both of these had been observed in research utilising DBT (Linehan, 1993). Cognitive change, she suggested, could impact on habitual thought patterns and self-management might result in developing a range of coping strategies. Although this was mainly speculation at the time, more

recent rigorous research with patients with depression utilising MBCT has subsequently provided a solid empirical basis for these assumptions (Segal, Williams & Teasdale, 2013). Relaxation could help manage chronic pain, Baer suggested, but she noted that this was not the goal of mindfulness and that other treatments can also do the same (Baer, 2003).

In their theory, Shapiro et al. (2006) suggested that there are three axioms of mindfulness: intention, attention, and attitude. Woven together these three are considered the “fundamental components...of mindfulness” (p. 377). Shapiro et al. drew these axioms from Kabat-Zinn’s popular definition of mindfulness and proposed that four variables (self-regulation; cognitive, behavioural, and emotional flexibility; values clarification; and exposure) led to a shift in perspective which they called “reperceiving”, an over-arching meta-mechanism, that led to beneficial outcomes. Carmody, Baer, Lykins and Olendzki (2009) put this to the test with an empirical study involving clinical and non-clinical adults enrolled on 17 MBSR classes who took a battery of measures over an academic year where 309 participants provided data. However, Carmody et al. (2009), felt that the responses in their study did not support the meta-mechanism of reperceiving and there was little support for a relationship between intention to practice and outcomes. To the positive, there was some support for values clarification and increases in cognitive, behavioural, and emotional flexibility. Brown et al. (2007) reviewed the two studies above, amongst others, and postulated that the reason mindfulness may be beneficial is due to the process of insight, exposure, non-attachment, enhanced mind-body functioning (lower stress and higher vitality from learning

mindfulness could be associated with better health) and integrated functioning.

Neuroscientific research has also investigated the mechanisms of mindfulness. This type of research covers investigations into the structure or function of the brain and its impact on cognition and behaviour. Mindfulness can be both a trait (a personality characteristic that is stable and lasts over a long time) or a state (a temporary state of being that is brief and often caused by an external stimulus) and most mindfulness questionnaires measure levels of trait mindfulness (Bergomi, Tschacher, & Kupper, 2013). Neuroscientific studies use these tests, self-report measures, and neuroimaging techniques to examine behaviour and cognition engendered by levels of state and trait mindfulness. Neurological research using fMRI and EEG techniques plots activity in the brain, and morphometry research investigates size, shape or density changes (Bandettini, 2009). Mindfulness and brain imaging techniques are developing side by side and there is a growing body of research building a picture of the suspected neural mechanisms of mindfulness.

Hölzel et al. (2011) reviewed a large body of conceptual, psychological and neural studies and proposed four main mechanisms of mindfulness: attention regulation, body awareness, emotion regulation, and self-perception, where attention regulation is considered to be the foundational groundwork for other mechanisms of mindfulness, and integration between these mechanisms was a key factor. It is to be expected that improved attention and body awareness (including improved interoception, proprioception and exteroception) suggested by the many studies reviewed by Hölzel et al., (2011) would be of great use to student musicians when learning new skills

and could help them reduce mind wandering in a relatively repetitive activity such as weekly lessons and daily practice. Emotion regulation covers the appearance and type of emotions that arise in response to stimuli, length of their stay, and how they are expressed and experienced. It is thought that the practice of present-moment awareness and non-judgmental thinking in mindfulness training may have an effect on emotion regulation linked to observable changes in the pre-frontal cortex and amygdala (Hölzel et al., 2011). Improved emotion regulation may help in dealing with music performance anxiety (MPA) and developing coping strategies in preparation for a demanding professional life. Perception of the self is a mental construct built up of our human experience. In studying mindfulness, the participant is encouraged to view both gentle and overwhelming feelings and thoughts that we consider as an intrinsic part of ourselves as simply mental events that arise, fall, and change over time. The desired effect is a kind of dis-identification and a release from mental distress. Hölzel et al. (2011) found that the activity change in the brain that accompanies this change of perspective has been investigated in a variety of self-report and neuroimaging studies. It is possible that musicians who learn mindfulness as students could develop a more objective self-awareness and resilience over time to help deal with the stresses inherent in an increasingly critical and difficult lifestyle.

The findings from Hölzel et al. (2011) were backed up by reviews of evidence from neuroimaging studies by Esch (2014) and Marchand (2014). Esch (2014) reviewed a vast body of studies covering the neurobiology, the biological principles, the neuroscience and scientific evidence, and the neuromolecular aspects of meditation. He concluded that meditation

experiences can be observed at the functional and structural levels of the brain, particularly in those parts associated with emotion, attention and memory, sensory processing, interoception, stress regulation and personal regulation. From a neurobiological viewpoint, it has been shown that levels of hormones such as dopamine and melatonin rise, and cortisol and norepinephrine levels are reduced during meditation. Marchand (2014) completed a more formal review of 36 papers searching PubMed using the word mindfulness associated with terms such as neuroimaging, fMRI, MRI, mechanisms, neuroimaging, and meditation. The studies covered a variety of demographics (clinical/non-clinical, meditators/novice meditators), and different types and lengths of mindfulness training. He felt unable to give firm conclusions but suggested that there is convincing evidence that brain activation changes happen during meditation. In particular, there is strong evidence that when engaging in mindfulness, the default mode network, the insula, the hippocampus, and the amygdala are key components in use. From a structural point of view, changes in the hippocampus also seem to be implicated. Both of these reviews found that mindfulness training impacted on attention, emotion regulation, automatic thoughts, and self-referential thinking, and associated neural mechanism changes were seen to underlie these effects.

In 2015, Gu et al. produced the first known systematic review and meta-analysis of mindfulness meditation studies in an effort to provide evidence to support the existing theoretical models (Baer, 2003; Brown et al., 2007; Hölzel et al., 2011; Shapiro et al., 2006). They used a two-stage meta-analytic structural equation model (TSSEM) in order to discover if potential

mechanisms mediated the effect of mindfulness-based interventions on clinical population outcomes. They performed a search of published reports matching the search terms of MBCT or MBSR with a variety of meditation terms such as “mechanism” and “meditat*”. From 1547 articles, the final 169 studies were included for their adherence to the search protocol and their methodological quality. There was particularly good evidence to suggest that MBIs have a positive effect on cognitive and emotional reactivity but insufficient evidence that self-compassion and psychological flexibility were mechanisms. Despite there being scant evidence for some of the mechanisms they identified, the overall results seemed to support the theoretical models they were investigating.

The neuroscientific research is supported by subsequent systematic reviews and meta-analyses studying the effects of meditation using morphometry (Fox et al., 2014) and functional neuroimaging (Fox et al., 2016). Fox et al. (2014) conducted a meta-analysis of 21 neuroimaging studies to investigate if brain structure changes during meditation and, if so, by how much, using an anatomical likelihood estimation neuroimaging meta-analysis method. They searched MEDLINE, Google Scholar and PsycINFO and included 21 studies in their review, which involved a variety of demographics and lengths of mindfulness intervention. There was little evidence for a causative effect of mindfulness on brain structure changes but there were consistent differences noted between regular meditators and those new to meditation. The likeliest brain structure changes induced by meditation occurred in the prefrontal cortex, cingulate cortexes, the insula, somatomotor cortices and the hippocampus, and the changes were comparable to ‘medium’

effects of other psychological interventions.

Fox et al. (2016) conducted a meta-analysis of 78 functional neuroimaging investigations of mindfulness utilising positron emission topography (PET) and fMRI studies of meditation gathered from MEDLINE, Google Scholar and PsycINFO. They were researching the possibility that, if there are psychological differences for the various meditation practices, they should be observable via activation at the neurological level. They used a method called activation likelihood estimation and identified four separate patterns of activation and deactivation in the brain under four different conditions of meditation. Three are taught in MBSR (focused attention, open monitoring, loving kindness) and one is not (mantra). Brain regions associated with cognitive control and self-reflection were found to activate in focused attention meditations and deactivations were observed in areas associated with mind wandering, memory, mental creations of the future, and conceptual and semantic processing. For open monitoring, there was activation noted in the areas associated with thought and action, and interoceptive processing, and deactivation in an area associated with sensory filtering. Loving kindness had the fewest studies, but activations were noted in areas associated with somatosensory processing and a sense of body, and there were no significant deactivations noted.

The field of neuroscience is still in its infancy so it is not until more longitudinal studies are completed that brain related findings and associated behaviour change can be conclusively attributed to mindfulness training (Tang, Hölzel, & Posner, 2015) but these are starting to emerge (Valk et al., 2017) and support the findings above.

1.1.3 Clinical studies in mindfulness

Most mindfulness research to date has occurred in the clinical domain, which has influenced the development of mindfulness in other fields, such as education. The wealth of research in this area means that it is now possible to conduct a meta-analysis of meta-analyses utilising only robust randomised controlled studies (RCT). Gotink et al. (2015) conducted a meta-analysis of 23 meta-analyses covering 115 RCTs, which involved a total of 8683 participants with a variety of medical health conditions. They were also able to confine their research to interventions using the MBSR (Kabat-Zinn, 1990) or the MBCT course (Segal, Williams, & Teasdale, 2013). Gotink et al. (2015) concluded that

The evidence supports the use of MBSR and MBCT to alleviate symptoms, both mental and physical, in the adjunct treatment of cancer, cardiovascular disease, chronic pain, depression, anxiety disorders and in prevention in healthy adults and children. (p.2)

Any musician could be diagnosed with any of the above conditions but it is particularly interesting that the list includes depression, anxiety and chronic pain, problems which often go hand in hand with the stresses of the professional music career demonstrated by research from around the world (Kenny, Driscoll, & Ackermann, 2016; Sousa, Machado, Greten, & Coimbra, 2016; Vaag, Bjørngaard, & Bjerkeset, 2016). Mental and physical problems are particularly prevalent in the current musical workforce (Ginsborg, Spahn, & Williamon, 2012) and have been known about for some time (Fishbein, Middlestadt, Ottati, Straus, & Ellis, 1988).

There has been a predominantly quantitative approach to the study of mindfulness in the clinical domain which precludes discovery of how or why mindfulness courses had positive effects or the acceptability of the course to the participants. However, the knowledge that doing a mindfulness course has significantly alleviated psychological and physiological symptoms for non-musicians with similar mental and physiological problems could be of practical use to musicians.

1.1.4 Mindfulness in sport

There are many parallels between sport and music as explored in detail by Martin (2008). Both types of practitioners have to develop similar psychological and behavioural skills to cope with learning and honing high-level skills over a long period of time; both have to deal with the pressures of competition and manage intense periods of performance. Röthlin, Horvath, Birrer, and grosse Holtforth (2016), concluded that mindfulness can facilitate performance for athletes in highly demanding situations, which could be useful for musicians. Using an online survey, they found that higher trait mindfulness had a relation with fewer performance worries, and a higher ability to deliver performance in competitions, for 133 athletes who were specialists in 23 sports. However, this cross sectional, purely quantitative study only measured trait mindfulness at one point in time. In future, a longitudinal study with some case studies could investigate the phenomenon more thoroughly.

The Mindful Sport Performance Enhancement (MSPE), a 4-week programme, was used with eleven archers and twenty-one golfers and showed improvements in flow, mindfulness and facets of confidence (Kaufman, Glass, & Arnkoff, 2009). The MSPE further reduced performance

anxiety and perfectionism in twenty-five long-distance runners, but not running performance (De Petrillo, Kaufman, Glass, & Arnkoff, 2009) until a follow-up study conducted a year later (Thompson, Kaufman, De Petrillo, Glass, & Arnkoff, 2011). Although this combined one-year longitudinal study was only based on a small, self-selected sample size of archers, golfers and runners, researchers found there were significant increases both in acting with awareness and decreases in rumination and task-related concerns. A 7-week MBSR-based targeted course, the Mindful Performance Enhancement, Awareness and Knowledge (mPEAK) was trialed in 2014 with seven members of the US Olympic BMX cycling team (Haase et al., 2015). This study employed seven cyclists and had no control or comparison group. Participants took part in an fMRI scan before and after the mPEAK intervention whilst taking part in anticipatory, breathing load and post-breathing load conditions interoceptive tests. The fMRI results demonstrated increased insula and anterior cingulate cortex activation during the interoceptive task, which suggested increased interoceptive awareness and the ability to identify and process associated emotions when both enduring and recovering from the resistant inspiratory breathing load tasks. Recovering from an unexpected occurrence on stage can be a difficult thing for musicians and this research suggests that learning mindfulness could help in developing intra-performance coping mechanisms.

The Mindfulness-Acceptance-Commitment (MAC) approach developed by Gardner and Moore (2004) is a 7-week course and has demonstrated positive results for a variety of athletes including field hockey and volleyball players (Wolanin & Schwanhausser, 2010), a spring board diver

(Schwanhausser, 2009) and darts players (Zhang et al., 2016) but only limited improvements for a variety of 19 college athletes (Hasker, 2010). Hasker performed an intervention study where the MAC approach was quantitatively tested alongside the US Olympic Mental Training manual but there were no significant differences between groups. The MAC group reported increased mindfulness skills such as improvements in describing mindful experiences and being less reactive and more responsive to stimuli. They also showed a greater acceptance of experience and felt better able to work towards their aims. However, there are no details as to the qualifications of the intervention validity assessors. The MAC trainers were clinical students and were given a brief training workshop before administering the interventions, but there are no details as to their personal mindfulness experience and the study was limited by only using a small sample. Gardner and Moore (2012) reviewed over a decade of mindfulness interventions in sport and after considering the 10 existing empirical research studies, they felt mindfulness had demonstrated its efficacy as an intervention to improve performance outcomes for athletes.

Connolly and Williamon (2004) suggested that “holistic body-mind training...taken as self-evident by sports trainers” (p.222) could apply to musicians. Mindfulness and sports enhancement researchers also see the connection between music and sports performance research as evidenced in Kaufman, Glass, and Pineau’s (2018) *Mindful sport performance enhancement: Mental training for athletes and coaches*, which includes a section on mindfulness and music, citing, amongst others, Czajkowski and Greasley (2015). The experience of athletes and musicians, the demands, preparation, performance, competition and physical aspects of their lives, can

be directly related to each other. Therefore, positive evidence from mindfulness research in the sports field suggests that there should also be benefits for musicians in the areas of performance, performance anxiety, and developing focus and attention skills from learning mindfulness.

1.1.5 Mindfulness in education

Educators are particularly interested in two main benefits that training in mindfulness can give to students: improved wellbeing and mental health, and enhanced focus and attention skills leading to better academic performance. Initially, disparate mindfulness practitioners introduced mindfulness and yoga practices into their local schools (Garrison Institute Report, 2005) but, over time, adherents have worked with academic researchers to develop formalised programmes and resources to enable better practice and raise awareness (Mindfulness All-Party Parliamentary Group, 2015). For example, Burnett and Cullen, developers of The Mindfulness in Schools Programme (b) collaborated with academics from Oxford, Cambridge, Exeter and Oxford Brookes universities in a non-randomised controlled study and found that, after doing the .b course, 522 mindfully-trained adolescents (age 12-16) from 12 secondary schools reportedly had fewer depressive symptoms, lower stress, and greater wellbeing (Kuyken et al., 2013). The .b course is 10-lesson mindfulness course specifically designed for 11-18 year old students to be provided in school settings (<https://mindfulnessinschools.org/>).

Meta-analyses and systematic reviews have been conducted on the effects of mindfulness training in schools. Zenner, Herrnleben-Kurz and Walach (2014) evaluated 24 studies covering a total of 1348 (age 5-18)

students where 19 studies included a controlled design. They noted that only half the studies used a comparison condition, only a third randomly assigned students to conditions, participant characteristics were often unavailable, and no study used an objective data gather, such as achievement grades.

However, they concluded that mindfulness was probably mostly effective in the cognitive domain, but also beneficial in psychological areas such as stress, coping, and resilience. Felver, Hoyos, Tezanos, and Singh (2015) completed a systematic review of mindfulness-based interventions in schools and included 28 studies involving 3414 students (age range 5-18). The main benefits reported were improvements in behaviour problems, anxiety, depression, affective disturbances, executive functions and physiological functions. A variety of prosocial psychosocial attributes were also found, such as improved classroom engagement and behaviour, emotion regulation, social skills, social-emotional competence, coping, positive affect, and optimism.

However, the researchers noted that there were limitations due to the heterogeneity of studies included in the review, socio-economic reporting was lacking, there was little replication, and no study had a strong active control. Maynard, Solis, Miller, and Brendel (2017) completed another systematic review of 61 studies up to May 2015 employing 6207 school age students and found small significant increases in cognitive and socio-emotional outcomes, and non-significant increases for academic outcomes. They noted limitations in publication bias, that there could be experimenter expectancy effects due to the fact that researchers ran the interventions, and there were no “blinded” studies where participants would not know which treatment group they were in to ensure results were not affected by the power of suggestion. Despite these

limitations, the results from these studies suggest that mindfulness may be effective in a variety of areas such as increased focused engagement in the regularity of weekly music tuition, and emotional coping skills to help music students deal with performing issues.

Studies have investigated the effects of mindfulness on academic grades. Bakosh, Snow, Tobias, Houlihan, and Barbosa-Leiker (2015) discovered that, after the 8-week mindfulness course, the experimental group (n=93) aged 8-9 years demonstrated significantly higher quarterly grades than matched controls (n=98). As Bakosh et al. (2015) have noted, reading levels at this age have been linked to academic achievement at age 18, this suggests that learning mindfulness early could have benefits on future educational academic outcomes. Bennett and Dorjee (2015) found that a GCE 'A-level' (Year 13) mindfulness group (n=11) who took part in an age-appropriate targeted MBSR course scored, on average, almost one grade higher than matched controls (n=13) at the 3-month follow-up. Despite the lack of longitudinal data, these research findings could be of use to music students who are also marked on their academic performance as part of a university degree.

Cross-parliamentary groups in the UK are considering implementing mindfulness in schools supported by public money based on research that suggests that mindfulness is beneficial in education (Mindfulness All-Party Parliamentary Group, 2015) and this political attention has not dimmed in the intervening years. In October 2017, there was the first international gathering of 40 politicians from 14 countries at the House of Commons, leading the media to describe the UK as "way ahead of the curve" in mindful politics

(Booth, 2017). Due to the growing evidence of psychological and academic benefits for students in education, it is now being recommended to include mindfulness in teacher training programmes to prepare teachers for the need to teach mindfulness in schools (Albrecht, 2018). As a result, mindfulness may become more prevalent in UK schools in the near future and this could have an impact on future musicians.

Mindfulness and meditation courses have been introduced into university settings for a variety of educational and psychological purposes. They have been seen to enhance knowledge retention and help improve cognitive skills such as reaction times, attention, decrease mind wandering, and enhance working memory and reading comprehension (Ching, Koo, Tsai, & Chen, 2015; Helber, Zook, & Immergut, 2012; Ramsburg & Youmans, 2014). They have also helped to develop critique skills (Bush, 2011), listening skills (Anderson, 2012), and to aid university adjustment (Lynch, Gander, Kohls, Kudlielka, & Walach, 2011; Ramler, Tennison, Lynch, & Murphy, 2016). There were no interviews or contextual open-ended written questions in Anderson (2012) whose mindfulness intervention and research design relied on Langer-based cognitive mindfulness but, despite this, his findings could be of use to music students for whom deliberately focused and attentive listening skills are fundamental.

University students requesting counselling has grown by 50% from 2010 to 2015 (Galante et al., 2017) and mental health is an increasing concern in higher education (Ingram, Breen, & Rhijn, 2017). Evaluative reviews of mindfulness on university mental health and wellbeing (Conley, Durlak, & Dickson, 2013), and on student stress (Regehr, Glancy, & Pitts,

2013) found that CBT and mindfulness interventions, especially those given in a class format and including supervised practice, were the most effective in decreasing psychological and physiological symptoms of stress, anxiety and depression in comparison to arts based therapies and psycho-educational interventions. Probably the largest quantitative RCT study to date was run at Cambridge University to discover the effects of a 7-week Mindfulness Skills for Students course on psychological distress during examination sessions compared with normal counselling and mental health treatments (Galante et al., 2017). In comparison to controls who had access to normal mental health services (n=307), an experimental group (n=309) took part in the mindfulness intervention combined with access to treatment as usual. The experienced, certified mindfulness teacher taught classes of 30 students for 75-90 minutes and participants were asked to practise between eight and 25 minutes a day. Two main questionnaires were administered: the Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM; referenced in Galante et al., 2017 as Connell, Barkham & Mellor-Clark, 2008) to test psychological distress, and the Warwick-Edinburgh Mental Wellbeing Scale (referenced in Galante et al., 2017 as Stewart-Brown & Janmohamed, 2008). They found that, despite only 59% attending at least half the sessions and a moderate loss to follow-up, experimental participants had better well-being and enhanced resilience to the build up of stress particularly during examination periods than controls. However, it is unknown at present if these results would continue over a longer period of time, so a future longitudinal study would be a useful addition. In a qualitative study by Ingram, Breem and Rhijn (2017), 14 students within an undergraduate class were taught mindfulness to enhance well-being. The

small sample of participants did not report mindfulness as universally useful and they occasionally used it in conjunction with other self-care methods, but most participants found it beneficial to their well-being.

The evidence suggests that mindfulness has helped general students in higher education to develop resilience, mental well-being and coping skills, and enhanced a variety of academically useful skills. It would be expected, therefore, that music students might find similar benefits in their academic studies but it is also possible that they might find particular benefit when faced with the additional stressors of a student musician's lifestyle (e.g. competitions, auditions, and performances).

1.1.6 Mindfulness and the performing arts

Mindfulness is also being explored within the performing arts, such as acting and dance. The University of Huddersfield's 'Centre for Psychophysical Performance Research' hosts researchers investigating contemplative techniques for actors (Chamberlain, Middleton, & Pla, 2014). Pla discussed what makes "presence on stage" (p.9) by investigating the connection between contemplative practice and attentive behaviour. Middleton studied, amongst other things, the Buddhist-inspired actor trainings of Nuñez, Grotowsky, and Trungpa who teaches actors how to "redo existence in order to learn to exist" (p.7), and Chamberlain has a number of practice-as-research interests within modern theatre and Buddhism. They argue that contemplative practice can improve observation of the body-mind in action, thus helping actors improve their control and channeling skills (Middleton & Chamberlain, 2012). However, their approach is mainly through first-person methodologies,

which limits its applicability to other populations although, in principle, their findings should also be relevant to musicians.

In America, Hague and Sandage (2016) explored the use of Fitzmaurice Voicework (FV) and MBSR techniques on performance anxiety in student actors. FV is a technique used to develop controlled breath support and utilises Hatha Yoga poses to trigger a reflexive tremor for “destructuring” processors prior to developing “restructuring”. Six experimental participant students were taught FV with 3-5 minutes of mindfulness at the beginning of each twice weekly session for two semesters, whereas six wait-list control participants were offered three hours of meditative and yoga practice. Data were gathered using physiological measures (heart-rate and respiration) and questionnaires testing mindfulness and public speaking anxiety levels. Physiological measures were taken at baseline and before three performances, and questionnaires were completed pre- and post-performances. Results for performance anxiety were inconclusive on all accounts between groups, although the experimental group reported lower perceived stress before the final performance and increased in mindfulness in comparison to controls. These results are not surprising, however, as the experimental teaching comprised little explicit mindfulness training and the FV work included yoga targeted at improving vocal technique rather than yoga specifically for stress reduction. The controls also had access to mindfulness and yoga training, which may have confounded results. The breathing results were also confounded by the discovery that most participants were mentally preparing monologues during the breath tests prior to performing and so all exhibited speech patterns of breathing. Heart-rate was high for all participants

but pre-performance arousal is to be expected and often beneficial. Further research isolating confounding factors could demonstrate more of a difference between groups in future.

Over two years, Moyle (2016) introduced mindfulness practices to university dance students (year 1, n=108; year 2, n=82) to develop their embodied practice and performance psychology skills. Participants contributed a variety of qualitative self-assessment, journal, and interview data, and completed questionnaires pre- and post-intervention. Non-significant results from the mindfulness questionnaire could have been partly influenced by low attendance rates possibly due to early morning mindfulness sessions. However, as the comments from many students were positive, a targeted questionnaire may have been more sensitive to dance and mindfulness-related changes. As Moyle's report contained no performance result outcomes or objective observations related to the intervention, an appraisal of student dancers with a blind assessment team in a future study might ascertain if impartial observers could identify mindfulness-induced changes. This type of research can have direct implications for contemplative performance studies utilising musicians as there are many parallels, such as learning skills and performance issues, for actors, dancers and musicians.

1.2 Mindfulness for musicians

1.2.1 Mindfulness in performance

The majority of contemplative research in music has addressed music performance anxiety. Fishbein et al. in 1988 researched the prevalence of musicians' medical problems in a study involving 48 American orchestras and discovered that after musculoskeletal problems, "stage fright" was reported most often. A certain level of anxiety, which is dependent on each musician's nature and nurture, is considered beneficial to create an optimal performance (Brotsky, 1996; Oliver, 1997; Papageorgi, Hallam, & Welch, 2007) but too much can be disturbing and debilitating (Ginsborg et al., 2012). Music performance anxiety (MPA), a term first coined by Salmon (1990), is highly prevalent amongst all types of performing musicians (Kenny & Ackerman, 2009): in amateurs, music students and professional performers (Steptoe & Fidler, 1987; Tamborrino, 2001), classical musicians such as Maria Callas and Paderewski (Williamon 2004), and popular artists such as Barbara Streisand and Carly Simon (Goren, 2014). MPA can even appear in music lessons, practice sessions and rehearsals (Fogle, 1982) and has been shown to be particularly prevalent in females (Çirakoğlu, 2013; Papageorgi et al., 2007)

Researchers have put forward a variety of theories on the causes of MPA, and a comprehensive review of research on MPA including causes and symptoms can be found in *The Psychology of Music Performance Anxiety* by Kenny (2011). MPA is not separately diagnosable (Çirakoğlu, 2013) but lies within the remit of Social Anxiety Disorder (SAD) (Goren, 2014). Treatment for SAD (including MPA) is usually medicinal or therapeutical (Kenny & Ackerman, 2009; Çirakoğlu, 2013). Many musicians use medication such as

“betablockers” (Fishbein et al., 1988; Oliver, 1997) but this type of treatment can have side effects and only treats the symptoms, not the cause (Taylor, 2001). Combined cognitive and behavioural therapies (e.g. CBT) are currently considered the best option to address causes of MPA due to their positive research base (Ginsborg et al., 2012; Kenny, 2011; McGrath, 2012). However, in an fMRI study by Goldin and Gross (2010), an MBSR course was seen to have a beneficial effect on 14 SAD sufferers. Although this study only had a small sample, if this type of intervention can help SAD sufferers, it is possible that it could also help those experiencing MPA.

There are different types of contemplative practices that have been employed in studies with MPA: yoga (e.g., Kripalu, Hatha Yoga), meditation (e.g., Zen), and mindfulness (e.g., MBSR and MBCT) which combines secular versions of Buddhist meditation practices and yoga: vipassana (insight meditation), samatha (concentration meditation), gentle Hatha Yoga exercises, and metta (loving-kindness) meditation.

Several studies have investigated or suggested that yoga could positively affect physical and psychological problems encountered by musicians. For example, a chapter devoted to yoga with reference to meditation is found in Driskill’s (2012) literature study on MPA for singers. In Driskill’s study, there are many positive yoga anecdotes from singers with MPA, references to institutions adopting yoga, such as OperaWorks, and quotes from notables such as opera singer Priti Gandhi and violinist Yehudi Menuhin who felt it helped with body-mind awareness and reducing physical tension. Driskill warned singers that there are many types of yoga available and that singers should search out the style that suits them and their needs

best. It is preferable, she advised, to look for trained yoga teachers sympathetic to or trained in voice.

There are a few intervention studies that have investigated the effect of yoga on music instrumental students. Butzer, Ahmed and Khalsa (2015) gave an overview of a project studying the effects of yoga and meditation on psychological states in young adult musicians enrolled on prestigious summer courses at the Tanglewood Music Centre in 2005, 2006 and 2007. Across the 3 years, 60 experimental participants took part in 8-week Kripalu yoga interventions and were compared with 43 non-randomised controls. The participants took a battery of pre- and post-intervention questionnaires that covered mindfulness, MPA, confusion, and dispositional flow. However, there was only one open question at the end that asked for comments on experience of the programme so findings in this paper are based purely on the limited quantitative measures. However, the results suggested decreases in MPA and confusion, enhanced flow states, and improved mindful awareness for the yoga participants. The individual studies are discussed in more detail in Khalsa and Cope (2006), and Khalsa, Shorter, Cope, Wyshak, and Sklar (2009), and each includes one paragraph at the end of the discussion summarising the qualitative results. For example, participants felt that yoga had improved stamina, concentration and music performance enjoyment but that the meditation sessions were difficult (Khalsa & Cope, 2006). Yoga was also reported to help with course fatigue and pre-performance anxiety, which had lasted beyond the summer (Khalsa et al., 2009). A similar study was run by Khalsa, et al. (2013) during the prestigious summer residential for adolescent musicians at the Boston University Tanglewood Institute in 2007

and 2008. In this study, 84 participants took part in the 6-week Kripalu yoga and meditation programmes and 51 controls were offered \$25 vouchers for their contribution. Participants completed pre- and post-intervention questionnaires, which measured performance anxiety and performance-related physiological responses. The participants, with an average age of 16, had significant improvements in MPA compared to controls, although the physiological results were inconsistent. Once again, there is only a short paragraph detailing qualitative results from the one open ended question at the end of the battery of questionnaires, but participants reported that yoga helped them to deal with course stress and fatigue, build stamina, manage performance anxiety, and improved self-confidence. An uncontrolled study by Stern, Khalsa, and Hofmann (2012) investigated the effects of a Kripalu yoga intervention with 24 university students (average age 21) who took part in one of two yoga/meditation courses in the academic year of 2007. The course involved 14 one-hour classes over 9 weeks at The Boston Conservatory. The questionnaires were taken at pre-intervention, post-intervention and during the 7-14 month follow-up. They covered music performance anxiety, mood states and psychological distress, and trait anxiety but not mindfulness. They did, however, include a practice log and an open-ended comments section. Results suggested large decreases in MPA and trait anxiety, which were sustained at the follow-up. A paragraph covering the qualitative responses was generally positive and noted that participants felt calmer with improved breathing and focus. These yoga and MPA studies are interesting and informative as far as uncontrolled questionnaires can measure, but they rarely give the participants chance to explain in detail why or how the yoga

intervention has improved MPA. There are also no other performance or solo practice related outcomes, which leaves the reader with more questions than answers. It is important for these studies in future to give participants the opportunity to freely explain the effects of yoga on them as musicians to gain a fuller picture of the effects of the course and, if possible, the longitudinal effects over time.

Step toe and Fidler (1987) explored the prevalence of MPA and coping strategies used by professional orchestra members, music students, and amateurs with a questionnaire study. Those who had moderate MPA demonstrated a realistic appraisal of performance and a high proportion of those with moderate MPA used meditation. It would be interesting to know if there was a correlation between meditation, realistic performance appraisal, and moderate MPA but this was not explored in the study. Taylor (2001) administered an MPA questionnaire to members of the National Association of Singing Teachers (NATS). Unfortunately, only 31 singers responded from a NATS membership of 5300 but a high percentage of those admitted to symptoms of MPA. Eight participants reported that meditation was a very effective strategy and one found it had eliminated MPA entirely. In 2009, Ryan and Andrews questioned the members of seven semi-professional choirs (n=201) about MPA. The majority had some experience of MPA, where solo passages and the conductor were found to be a big influence on anxiety. In this study, 22% used meditation as a coping strategy and 9% used yoga.

One of the most highly cited papers in this area is Chang, Midlarsky, and Lin (2003), who enrolled university music students into an 8-week Zen (Chan) meditation programme. The meditation group (n=9) showed less mind

wandering and anxiety at the immediate post-intervention performance than the controls (n=10), as reported by self-report questionnaires, but the finding was not statistically significant. In an open-ended questionnaire, however, meditation participants were generally positive, but some felt more self-conscious and aware of intrusive thoughts, and they felt that the techniques would take time to grow. Lin, Chang, Zemon, and Midlarsky (2007), provided further analysis of the data from Chang et al. (2003) detailing the findings from two independent professional music jurors on the post-intervention meditation and control group music performances. However, the assessment of music performance only happened after the intervention and there was no pre-intervention performance for comparison. Although the Zen meditation intervention did not appear to significantly improve music performance quality according to the quantitative measures, there was a positive linear relationship between MPA and performance quality (which was not as hypothesised). The qualitative reports show that some meditation participants were more aware of their MPA symptoms but were able to accept them and channel them into better quality performances, which may explain this trend. In comparison, the control group demonstrated increases in MPA with significant decreases in performance quality (which was as hypothesised). This suggested that meditation could improve musical performance through an awareness and acceptance of MPA symptoms.

Kenny (2011) does not recommend mindfulness for MPA but her opinion relies on early clinically based reviews. She references reviews by Bishop (2002), Krisanaprakornkit, Krisanaprakornkit, and Piyavhatkul (2007), and Toneatto and Nguyen (2007). However, most of the studies included in

these reviews, she notes, are of low quality, which is always a problem in the very earliest stages of testing a new intervention. If Kenny had been able to see Gotink et al.'s more recent rigorous RCT meta-analytic review (2015) where MBSR and MBCT courses have demonstrated significant improvements for clinical anxiety sufferers, she may have considered a alternative conclusion. Despite that, she is correct that the definitive definition of mindfulness is still in discussion, and that research studies for MPA are few. At the time, she was unable to find a single journal article of published research using MBSR or MBCT as an intervention for MPA, only citing the Zen meditation-based Chang et al. (2003) study, and associated further research, Lin et al. (2007).

De Felice (2004) was the first to theorise on the positive benefits of mindfulness on abnormal MPA. She had been inspired by early neuroscientific research (Davidson et al., 2003) that had observed increases in the area of the brain commonly associated with positive affect in 25 healthy participants who had taken an 8-week mindfulness course in comparison to 16 wait-list controls. Basing her argument on Barlow's clinical neuroscientific studies in emotion and anxiety (e.g. Barlow, 2000), she felt that mindfulness meditation could reduce negative emotions and their associated unpleasant physical reactions thus having a positive effect on abnormal MPA. She suggested that as mindfulness meditation is easily learnt, this could be a useful addition to strategies for musicians experiencing uncomfortable levels of MPA. She also speculated that being conscious of each thought might engender fewer automatic performances, that performers could be more original, be better able to cope with any situation on stage and have more performance

enjoyment. Oyan (2006) further speculated that mindfulness meditation might help musicians who suffer from performance anxiety whilst on stage. He felt this would subsequently enhance creativity and freedom as he found that most MPA researchers would agree that being in the moment is an important aspect of performance success. However, these are only theoretical assumptions based on personal experience and research in other domains at the time.

Diaz (2018) explored the connection between the use of meditation practices and MPA in college level students (n=255) using the Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003) to measure mindfulness, the Performance Anxiety Index (PAI referenced in Diaz (2018); Nagel, Himle, & Papsdorf, (1989)) to measure MPA levels, and the Multidimensional Perfectionism Scale (MPS referenced in Diaz (2018); Hewitt & Flett (1990)). Forty-eight percent had engaged in meditation practices, and those who did regular practice on a weekly basis reported reduced MPA. Those who were more innately perfectionist and had lower trait mindfulness predicted higher levels of MPA. It is possible that, if participants knew they were doing a research study investigating the effects of mindfulness on MPA, they might have reported lower levels of MPA in the questionnaires to validate their lifestyle choices. It is also difficult in this study to know what the participants meant by the word mindfulness or meditation as there was no qualitative element to this study. Diaz categorised different types of meditation, (e.g. yoga, mindfulness, vipassana, loving kindness), but the definition for each category is unclear. For example, mindfulness alone can be described by people as a few minutes on a mindfulness mobile application or

a full 3-month silent retreat. Mindfulness includes yoga practices, yoga can include meditation, meditation can include loving kindness practices and some people even described soccer playing as being a meditational practice. It may be possible to play football in a meditational manner but what is really meant by this is not clear from Diaz's quantitative report. It is clear, however, that some sort of meditational approach did seem to have a positive effect on MPA if done regularly.

Farnsworth-Grodd and Cameron (2013) and Clevenger (2015) both investigated the connection between trait mindfulness and MPA with a questionnaire study. Farnsworth-Grodd and Cameron asked 159 music student participants to complete the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) and a battery of anxiety and coping measures at the beginning of term, just before a performance exam, and 48 hours after the performance. They found that students with higher trait mindfulness coped better with pre-performance-related thoughts and emotions and demonstrated lower MPA during performances by focusing on positive aspects of performing, demonstrating greater self-compassion and acceptance. Students who demonstrated higher trait mindfulness also described themselves as more satisfied with their effort and quality of performance, felt that they performed better in performances than during solo practice, and were less likely to experience problems on stage than participants with less trait mindfulness. However, due to the quantitative research design, these problems were not detailed or any context given. Clevenger (2015), using the Kenny Music Performance Anxiety Inventory, the MAAS and some demographic questions, also investigated the

connection between trait mindfulness and MPA with 62 music students. Clevenger's results, however, showed that MPA and trait mindfulness had a non-significant relationship. She also discovered that the relationship between years of music experience and MPA were non-significant, and "length of time with mindfulness" and MPA was also non-significant. The question that asked for participants' "length of time with mindfulness" was only addressed with one survey question, "How long have you been engaging in mindfulness?" (Clevenger, 2015). As the survey did not include any operationalization of previous mindfulness training experience it is difficult to interpret the results. Few people will admit to being naturally mindless and, in fact, nearly half (n=30) of the respondents reported "using mindfulness" for over 12 months but it is unknown whether this meant that they had completed a mindfulness course over a year earlier or had always considered themselves mindful by nature. One of the possible reasons for a difference in relational outcomes between trait mindfulness and MPA in these studies may be due to the measures used. Clevenger used the MAAS, which only measures awareness and attention, whereas Farnsworth-Grodd and Cameron used the FFMQ, which gives a far more detailed and in-depth analysis of the construct (see Chapter 2, Section 2.3.2).

Both Hribar (2012) and Steyn, Steyn, Maree, and Panebianco-Warrens (2016) studied the effect of a mindfulness intervention on music students' psychological well-being and MPA. Hribar (2012) investigated two iterations of the 8-week targeted MBSR course, Mindfulness for Musicians, at the Guildhall School of Music and Drama using mixed methods. 25 participants took the course, completed pre- and post-questionnaires (24f) and eight were

interviewed for 10-20 minutes each. The questionnaires covered wellbeing, stress, depression, anxiety, and mindfulness. Results showed improvements in wellbeing, positive emotion, life satisfaction, and trait mindfulness, and there were decreases in stress and depression but no change for anxiety. The qualitative reports demonstrated that all eight interview participants reported beneficial effects on MPA: they reported enhanced focus skills, they accepted their anxiety more, managed symptoms better, and two participants reported increased performance enjoyment. However, there were no independent evaluations of performance outcomes or references to effects on performance quality. Interestingly, three participants also mentioned developing more effective practice due to increased focus. However, due to the short length of the interviews, this new finding was not investigated very thoroughly and it is possible that longer, more open-ended interviews, or more participants could have produced other music-specific findings. Steyn et al. (2016) combined a sports mindfulness course (MAC) (see Section 1.1.4) with psychological skills training (PST) intervention for musicians. She tested the intervention with a number of questionnaires covering psychological well-being, psychological skills, mindfulness, and MPA using university music students (n=21) in comparison to non-randomised controls (n=15). The 7-week intervention produced significantly positive results in the questionnaire results measuring self-confidence, anxiety, concentration, relaxation, motivation, mind set, and positive relations with others but the questionnaires were not administered around performance opportunities and there were no follow-up data gathered to investigate if improvements lasted over time. Nevertheless, the researchers concluded that this approach had the potential to improve psychological well-

being for musicians.

Three studies have tested the effects of the mindfulness-based Acceptance and Commitment Therapy (ACT) course (see Section 1.1.1) modified for MPA. Juncos and Markman (2015) invited a violinist with MPA to take part in the therapy and she completed a battery of tests six times from before, during, and up to 1 month after the intervention. The tests measured ACT processes using the Philadelphia Mindfulness Scale (PHLMS; Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008), and MPA psychological and symptom processes using the Kenny Music Performance Anxiety Inventory (KMPAI; Kenny, 2009). Results showed significant improvements in MPA symptoms and enhanced psychological coping and control. An experienced performer and teacher of strings, who assessed the violinist's performance quality under blinded conditions, also felt that her performance had improved significantly over the intervention and was now freer and more expressive. The participant also provided a follow-up interview and reported that she had used ACT techniques during performances. She described being better able to deal with problems on stage, felt her recent performances were the best she had played, and was subsequently happier to do more performing.

This was a similar protocol to that used with a professional drummer with MPA in Juncos's earlier unpublished thesis although that study did not include the blind assessor of pre- and post-intervention performances. However, the drummer felt he accepted MPA more, demonstrated significant improvements in self-compassion, managed to diffuse anxious thoughts, and experienced lower distress (Juncos et al., 2014).

A further similar study (Juncos et al., 2017) invited seven advanced choral college vocalists (6f) with MPA to take part in a 12-session ACT/MPA intervention to improve mental flexibility for MPA. The participants completed a similar set of questionnaires to the earlier studies, including one about experiential shame, seven times over the study period: twice before treatment, three times during, and twice afterwards at 1-month and 3-month intervals. They also provided two follow up interviews (1 month and 3 months). Participants recorded two video performances pre- and post-intervention and three “blinded” independent musicians rated them. There were similar results to the other studies in ability to accept MPA symptoms and improvement in psychological flexibility but other results from this more rigorous study were mixed. There were significant reductions of MPA examined by the KMPAI, and significant improvements on two of the ACT processor questionnaires but no significant improvements on the mindfulness questionnaire (PHLMS). However, the interviews revealed increased confidence, reductions in avoidant behaviours, and participants reported that they were happier to do more performing. The blind assessors decided that there was an improvement in average performance quality but there were strong discrepancies amongst the raters. All these studies, however, have small samples, and no controls for the self-report questionnaires. This underlines the importance of utilising as many participants as possible and introducing controls even in fairly robust mixed method studies when exploring the efficacy of any intervention, such as that used in the singers’ study in the current thesis.

Mindfulness includes aspects of Hatha Yoga, meditation and psychological skills training, all of which have demonstrated positive results for

those with high levels of MPA both anecdotally and through experimental attention as can be seen by the literature discussed above. Therefore, teaching a mindfulness course to musicians with MPA is likely to have a positive effect on symptom reduction, emotion regulation, and performance experience of MPA.

1.2.2 Music education

Mindfulness and music have been described by Lecuona and Rodríguez- Carvajal (2014) as a “promising subject of an unmapped field” (p.1) and they base this description on their systematic review of 27 theoretical and empirical papers. Their review covered the construct of mindfulness applied in any way to the musical field, either as a stimulus (on audiences), as a response (on musicians), and in music therapy. It included a wide variety of sources, such as book sections, dissertations, and conference proceedings papers but they found no papers exploring mindfulness in music education. Mindfulness has been theorised as an underused tool for deepening music understanding (Falter, 2016) who suggested a variety of mindfulness type exercises to enhance teaching music to young children. Furthermore, in a recent book chapter published in 2016 discussing the current state of mindfulness in music, Patston reported that he could not find any studies investigating the effects of applied mindfulness in music tuition. This section, therefore, explores literature surrounding education specific activities of music students, theorises how mindfulness could have an effect on these activities, and explores the sparse theoretical and empirical research performed in relation to contemplative interventions and music/musicians.

Music practice

Basing her arguments on philosophical thought and research in neuroscience and psychology, Cornett-Murtada (2012) theorised that introducing mindfulness training to student musicians could help them develop good instrumental practice skills. Three music participants in Hribar's (2012) research into the effects of a mindfulness course on psychological wellbeing and music performance mentioned that solo practice before performances was more efficient due to mindfully improved mental focus. However, the small sample size and limited 10-20 minute interviews did not give enough time to investigate this finding more thoroughly, something which the current thesis seeks to rectify. Although there is still a debate as to what makes good practice (Patston, 2016), advice to improve instrumental practice has covered enhancing concentration and motivation, goal setting, improving time management, being creative, deeper listening, and increasing self-awareness (Chaffin & Imreh, 2001; Connolly & Williamon, 2004; Hallam, 1997b; Lehmann & Ericsson, 1997) many of which could be enhanced by mindfulness training.

Different levels of expertise require different types of attention for effective learning and practice in sports and in music (Duke, Cash, & Allen, 2011). For example, beginners' music practice is usually concentrated on playing "correctly" (Hallam, 1997a, p.99) using more focused attention, whereas expert musicians use a variety of meta-cognitive skills such as self-awareness and concentration coupled with planning, monitoring and evaluation (Hallam, 2001). As mindfulness teaches two types of attention - focused attention and open monitoring, and the flexibility to choose and swap between them - it should be of great use to any practising musician.

Chaffin and Lemieux suggested that it takes at least 10 years to become a professional musician and those who practise for longer generally achieve more expertise (Chaffin & Lemieux, 2004; Hallam et al., 2012). However, it is not just a matter of practice hours but also the quality of practice that makes a difference (Nielsen, 2001). A lack of effective practice strategies and hours of ruminative, mindless practice do not beget an expert musician (Langer, 1998) and research seems to suggest that good practice leads to good performances where even small changes in quality could mean large differences over time (Chaffin & Lemieux, 2004). Even in the early stages, Kenny Werner, an award-winning jazz pianist and teacher of over 40 years experience, suggested that it is possible to learn to play each note mindfully and musically and this can lead to greater listening, mastery, freedom and musicality (Werner & Alterio, 1996). It is therefore important for music teachers to teach students how to practise consciously, reflectively, and mindfully (Miklaszewski, 2004). For the advanced musician, preparing a new piece is still a beginning even though they already start with a basic toolset of instrumental and musical skills built up over time. They work on pieces technically until they lead to automaticity and from technical proficiency to the expressive (Nielsen, 1999, 2001). Of course, some skills inevitably become automatic through practice, but this automaticity should start out intentionally and thoughtfully (Chaffin & Imreh, 2001; Hallam, 1997b). Automaticity that is built mindfully can provide a good foundation for subsequent creative expression, suggesting that mindfulness training could help develop good music practice skills resulting in better performance.

Steinfeld and Brewer (2015) considered re-conceptualising the act of

mindfulness practice as music practice and vice versa and suggested that the mindfully trained act of bringing one's attention back to the focus of attention is essential for both practices. They theorised that it could help with practice avoidance issues where mindfulness training encourages an accepting and objective state of mind, which helps one to be aware of the unpleasant and simply "be" with that situation non-judgmentally. It could also encourage more "flow" states within practice (Diaz, 2013; Steinfeld & Brewer, 2015).

Mindfulness, however, is not to be confused with "flow" as outlined by Csikszentmihalyi and Nakamura (2002). "Flow" requires clear goals and immediate progress feedback and the knowledge that one is engaging in an activity that gently stretches existing skills. "Flow" is often a serendipitous experience whereas mindfulness is intentional. As a result, it may be possible that being mindful can engender a state of "flow". For example, in mixed-methods qualitative dominant mindfulness research studying the effects on student singers, Czajkowski and Greasley (2015) saw changes in participants' practice behaviour. Some realised they had practised for longer because they entered a type of creative "flow" but others practised for a shorter time due to better time management and quality of practice. This study, which is discussed in more detail later, only employed a small participant sample but participants reported being more concentrated during practice sessions after a few minutes pre-practice mindfulness, and were able to use mindfulness within practice sessions when practice became difficult which helped them to continue. As self-awareness, concentration, psychological flexibility and meta-cognitive skills are enhanced by mindfulness, this could be one additional route to developing these skills in student musicians to support them through

their whole musical life.

It is possible that music practice, being a concentrated activity, could develop the same focus and attention skills as mindfulness practice. This might suggest a confound in a study that explored the effects of mindfulness on music practice. Serrano and Espírito-Santo (2017) suggested that music practice could be considered similar to mindfulness training as both are associated with focused attention and emotion regulation. As mindfulness has been demonstrated to improve psychological flexibility, Serrano and Espírito-Sante (2017) explored the possibility that music practice would also enhance psychological flexibility. Their study compared 39 children with 28 mean months of music instrumental training with ballet dancers (n=33) who had 46 mean months of training, and controls with no explicit ballet or music training experience (n=41). All participants took the Child and Adolescent Mindfulness Measure (CAMM) and the Avoidance and Fusion Questionnaire for Youth (AFQ-Y), which assessed psychological flexibility. For a review of validity of reliability of the CAMM test see Greco, Baer and Smith (2011) and for the AFQ-Y, see Greco, Lambert and Baer (2008). This study only provided cross-sectional data, there was no observational data from teachers on perceived psychological flexibility, and there were gender imbalances in the participants. However, the researchers unexpectedly found that the music participants were as psychologically inflexible as the non-experienced controls, which suggests that, although music practice might not improve mindful focus and psychological flexibility per se, mindfulness training could improve these skills to help with music practice.

Practical guides written by music pedagogues and researchers to

improve practice behaviours demonstrate many parallels with exercises learnt in mindfulness training. Connolly and Williamon (2004) devised an intervention called “Zoning in: Motivating the musical mind” for 58 students. Many of the exercises will be familiar to mindfulness practitioners, such as concentration and focused breathing exercises, a mindful breathing counting exercise and the present moment technique (p.237). This training regime was seen to build mental skills that helped develop the students’ “inner ear”. Werner and Alterio (1996) gave step-by-step instructions to develop what they term “effortless mastery” (p.99). For example, the first step, “Inner Space”, reads like the mindful exercises of breathing and a type of “body scan”, and the second step, “Staying in the Space”, is a non-judgmental and non-critical acceptance exercise. Bruser (1997), in her book *The art of practicing: A guide to making music from the heart*, presented a 10-step process. She recommended several recognisably mindful exercises such as stretching (yoga), settling in the environment (being present), body awareness (body scan) and a type of mindful listening. Clark and Williamon (2011) evaluated a mental skills training program for conservatoire musicians, which taught motivation and effective practice skills, relaxation and arousal control strategies, and performance preparation and enhancement training. Experimental participants (n=14) who took the 9-week course were compared with controls (n=9) before and after the intervention through a battery of questionnaires covering self-regulated learning, perception of music skills, mental imagery, self-efficacy, and anxiety. They also gave qualitative feedback during and following the intervention. For the experimental participants, the results showed an improvement in practice quantity and efficiency, an increase in self-awareness, self-efficacy and

confidence, a change in perception of music performance anxiety and a more positive attitude to making music. There were no mentions, however, of any effects of the course in daily life, in teacher/pupil relationships, or in instrumental lessons. There was also no feedback from instrumental teachers and the use of a subjective performance quality assessment was unsuccessful due to low correlations between the evaluators. However, the course was well received by the participants and the study operated a robust mixed methods design. Nevertheless, one of the benefits of mindfulness over all of these programmes is its prevalence, variety, and availability. Mindfulness courses can be taken experientially in person around the world, in full 8-week group courses, or more flexibly and privately online which might be more conducive to musicians with busy lives.

It is possible that music practice might improve skills associated with mindfulness, such as self-awareness and concentration, observed, for example, by Hallam (2001) with expert musicians. If this is true, in a study investigating the effects of mindfulness on music practice, it could cause a problem when interpreting the results. In Serrano and Espírito-Santo (2017) this problem was explored; however, the child music participants' psychological flexibility after doing music practice was found to be no better than the ballet dancing controls, suggesting that their music practice had not improved psychological flexibility. Also, the reason that the expert musicians in Hallam (2001) were expert may be because they had natural strengths in focus and concentration, rather than they had specifically learnt these in the course of doing music practice. It is clear that there are problems for many students maintaining mindful skills in music practice because there are books

(e.g. Bruser, 2011), and courses (Connolly and Williamon, 2004) developed to address this. It is possible that focus and concentration skills taught within the mindfulness course, which are similar to those taught in books and courses, could also be beneficial for improving music practice.

Music skills

Listening is an important skill for students to learn in instrumental lessons and apply in private practice (Miklaszewski, 2004) as being a better listener can help you be a better musician (Bruser, 2011; Werner & Alterio, 1996). In an MBSR course, the mindful sounds exercise is an integral part of the sitting meditation. It is usually a non-musical, aural awareness exercise where one becomes aware of everyday sounds arising and fading in an accepting, open-minded, and non-judgmental way. It is initially used as an exercise to lead to focused awareness, and later as an introduction to awareness of the arising and fading of thoughts and emotions (Santorelli, Meleo-Meyer, Koerbel, & Kabat-Zinn, 2017). Some researchers, however, have introduced music listening into mindfulness courses. Participants have listened to music to enhance their mindfulness skills for improved psychological outcomes: cancer (Lesiuk, 2015), anxiety (Tomaselli, 2014), chronic illness (Nicol, 2010), in therapy (Fidelibus, 2004; Graham, 2010) and depression (Eckhardt & Dinsmore, 2012). "Strong personal media" was used for those with depression and pain (Hsieh, 2014), and "relaxing music" was used in a mindfulness course for chronically stressed workers (Klatt, Steinberg, & Duchemin, 2015). Music listening has also been used to enhance mindfulness in non-clinical populations (Haynes, Irvine, & Bridges, 2013). Conversely, as a music student, better awareness from learning mindfulness

should help one to listen better (Anderson, 2012; Connolly & Williamon, 2004; Fidelibus, 2004). Diaz (2013) tested this theory with university music students (n=132) who were assigned to four groups. Two groups (mindfulness with aesthetic (n=34) or flow response (n=35)) were given a 15-minute mindfulness breath and body meditation before listening to Puccini arias, and two control groups (aesthetic (n=32) or flow (n=31)) listened to the Puccini without the mindful induction. Participants used self-report questionnaires and also indicated their responses through a Continuous Response Digital Interface. A majority of participants in the mindfulness groups reportedly felt an increased focused attention to the music and ten of them experienced a flow experience for the entirety of the music testing period which represented “a highly unusual finding in comparison to previous studies” (p.13). However, the music used as a stimulus was highly arousing and there might not have been such a response if the music had been of a different genre or style. Despite this, though, training in mindfulness could help musicians to be better listeners for a variety of positive musical outcomes (Anderson, 2012; Diaz, 2013) and it could be used by music and instrumental teachers who need strategies to enhance listening skills.

Creativity

Oyan (2006), based on his own experience, speculated that anxiety during performance would stifle creativity and “learning how to be creative in the moment of performance is as important ultimately as learning how to play the instrument itself” (p.6). Anxiety can often accompany high levels of self-criticism (Kenny, 2011) and, in a non-peer reviewed report discovered through Internet searching of university websites, Edwards (2014) at Ohio Wesleyan

University found that four music education majors had significantly lower self-critical awareness during improvisation after doing a 10-minute meditation than doing improvisation alone. During a 5-week Elementary Music Methods course, they learnt basic meditation and improvisation using soprano recorders and practised four times each week either improvising alone for 10 minutes or for 10 minutes after doing 10 minutes' meditation. They completed pre- and post-questionnaires which tested for perceived mood, creative effort, and self-critical awareness and the results demonstrated a small non-significant improvement in creative effort and a significant improvement in personal mood after improvisation for both conditions. Unfortunately, this study had a tiny unspecified demographic, there are no details as to which questionnaires were used, no control group, and no objective data on performance outcomes which makes it difficult to fully evaluate this study.

Mindfulness training may help musicians to cope with symptoms of MPA, high self-criticism and improve creativity in performance, but it may also improve creativity independently of MPA. Aung (2013) discussed the importance of being in the present moment in vocal performances for creative possibilities, Davidson (2002) suggested that training conscious mechanisms to stay on task in the moment would keep focus and spontaneity, and Williamon (2004) proposed that successful performances are prompted by conscious control over mind and body states. Cornett-Murtada (2012) noted that, in the past, philosophers such as Descartes viewed the body and mind as separate, but she suggested that this theory of them as separate entities is now at an end. She theorised that training in mindfulness can nurture the musician in a holistic way by improving the awareness of the "mind-body"

connection, present moment awareness, conscious control, focus, and general wellbeing to produce creative optimal performance experiences.

Newton (2015) investigated the relationship between mindfulness and creativity by teaching mindfulness to a small demographic of three composer/performer participants. The mindfulness intervention described in Newton's article consisted of eight 40-minute sessions over a period of four weeks, however, it was very different to the traditional MBSR course even though it used mindfulness practices inspired by or recorded by Jon Kabat-Zinn. Newton gathered results by employing a pre-intervention focus group and individual unstructured interviews, and post-intervention unstructured one-to-one interviews. The results suggested that mindfulness enhanced creativity in two ways: participants were able to express music more clearly and easily due to increased awareness and focus which also provided inspiration for composition; and participants' cultivation of a non-striving attitude promoted emotion and negative thought regulation enabled them to be more intuitive and open in their expression. However, there are several issues that must be taken into consideration. The intervention, being different to a MBSR course, needed some validation of its own in order to provide support for the assumption that the intervention taught that which it claimed to teach. Possibly, utilising one of the many mindfulness questionnaires could have achieved this. Daily practice schedules, and the adherence to them, are mentioned but not specified, and there are no details of the experience or training of the mindfulness instructor. It is also not clear how long the interviews were, where they took place, and what balances were in place to reduce bias as two participants were the interviewer's personal friends.

Lebuda, Zabelina, and Karwowski, (2016) explored the connection between (non-musical) creativity and mindfulness using a more methodologically robust technique reviewing 20 studies covering an almost 30-year period.

Statistically, creativity and mindfulness were weakly but significantly related.

They reported that open-monitoring mindful training seemed to have the biggest effect and the findings suggested both a correlation and a causal link between the two constructs.

In a music and cognitive mindfulness study, Langer, Russel, and Eisenkraft (2009) researched the effects on creativity of a simple “focused attention” type of mindfulness instruction to an orchestra in two studies. Although Langer’s Western cognitive form of mindfulness is not to be confused with that of broader mindfulness inspired by Eastern traditions, there are elements of overlap, particularly with focused attention training. In the first study, members of a university orchestra (n=60) were asked to play the Finale from Brahms’ Symphony No.1 twice: the first control instruction asked them to “think about the finest performance of this piece that you can remember, play it that way” and then they were asked to perform it again with the experimental instruction, “play this piece in the finest manner you can, offering subtle new nuances to your performance” (p.128). A local community chorus (n=143) listened to recordings of both performances and was asked to describe any differences that they heard and rate their performance preference and reasons in a questionnaire. Results suggested that musicians felt that they had been able to follow the instructions and significantly preferred playing under the mindfulness instruction. Listeners also significantly preferred the mindful performance. It is possible that listeners may have preferred the

second performance because they had familiarity with the music. This possible confounding effect on the results for the first study was noted by Langer et al. (2009) and their article reports a second study to address this possible limitation.

In the second study, a symphony orchestra (n=71) was asked to play Rimsky-Korsakov's "Polonaise" from *Christmas Eve*, and Herbert's "March of the Toys" from *Babes in Toyland* several times. The same control instruction was given for two performances of the Polonaise and the first playing of the March but for the second performance of the March, they were given the experimental instruction. Members of another community choir (n=86) were divided into two groups. Group 1 listened to the experimental instruction performance of the March followed by the control instruction and Group 2 listened to the order reversed. All chorus and orchestra members filled out the same questionnaires as the first study. These studies used recordings of the orchestra playing, so it is impossible to know if findings would be transferrable to live performance; the physical absence of the orchestra for the chorus or the absence of an audience for the orchestra may have had an effect on adherence to instructions or enjoyment. Also, people do have different musical preferences and some participants' responses may have been affected by listening to a less favoured piece twice. However, there was a similar finding in both studies for orchestra enjoyment where "playing mindfully improved the performance more than practice alone did" (p.131). The second study's audience results supported the possibility that audiences prefer listening to second performances, but it also showed that a mindfully performed piece is preferred more often. It is also possible that orchestral players may not have

all used the instruction to play with more “subtle new nuances” (p.128) in the same way as each other. It might have been better if the instructions to the orchestra were more clearly defined. This may have made it easier for readers to understand exactly how the orchestra had performed differently and, if possible, what changes the audience might have heard.

These studies may suggest that mindfulness has a positive impact on musical creativity for performers, composers and listeners with and without MPA through enhancing focused attention and psychological flexibility when playing and listening on stage. Danny Penman (2015) has written a book on mindfulness to enhance general creativity that might prove useful for the busy musician.

Music lessons

Elliott (2010) provided personal evidence of the effects of mindfulness on singers in education. She advocated that it could help with posture, breath control and awareness, tension awareness, help retrain bad habits, develop effortless vocal balance, and increase concentration, flexible focus and clarity in performance. However, without a controlled study involving singers, such as that used in this current thesis, it is difficult to know if these anecdotal findings would transfer to singers in general. Similarly to Elliott (2010), Sandage (2011) suggested the possible beneficial effects of mindfulness on singers based on the observation that some music teachers have been using contemplative practices in music lessons for some time. She theorised that mindfulness would improve focused attention, emotion regulation and psychological flexibility. She felt that improved focused attention would help with voice training, and that enhanced focused attention, combined with improvements in

emotional regulation and psychological flexibility, could help with performance anxiety and achieving a “flow” state in performance. However, she only provided empirical evidence from sports performance research.

Shippee (2010) described using a variety of mindful techniques in music lessons by blending music making with contemplative enquiry. This, he explains, is because music students often lose sight of joyful and innocent creativity during music making in their attempts to make the “right” sounds. He recommended that, three times a day, students play one note for five minutes using different approaches, such as dynamics and articulation, and listening in the present moment to their own internal thoughts and emotions as well as their musical production. Students are then advised to move onto 2 notes and so on. He feels this approach may encourage creative learning of technique leading to good music, which he describes as “personal expression and communication made through the tools of technique” (p.80). Sarath (2010) also described the contemplative practices he used to encourage his jazz students into creativity and consciousness where “improvisation...might be thought of as a kind of meditation in action” (Sarath, 2010, p.169).

In 2016, Patston reported the research on the use of mindfulness in the teaching and learning of music as being nascent. He described the traditional music pedagogic approach as working on a deficit-based model and felt that a more mindful approach, such as the one he has developed called Music Instruction Non-Deficit (MIND), could be an improvement. MIND combines MAC and positive psychology with the core ideas of teaching music whilst considering students’ strengths and mind set, and including mindfulness elements such as openness, curiosity, and enjoyment. It is unfortunate that

Patston does not refer to Steyn's Master's thesis (2013) where the sports-based MAC/PST approach with undergraduate music students was employed to test its effects on psychological well-being and music performance anxiety. This study could have been a useful addition to his argument. Patston suggested how MIND can be applied to children, adolescent, and adult music students to enable musicians to become emotive rather than emotional in performance; however, he notes that there is currently no empirical research to underpin his particular pedagogic approach.

Mindfulness for singers

In order to investigate the effects of mindfulness in music education, Czajkowski (2013) developed a unique Mindfulness for Singers (MfS) course based on the MBSR course and, using a mixed-methods pilot intervention study, found beneficial effects on eight participants learning singing technique. Results from the Five Facet Mindfulness Questionnaire (Baer et al., 2006) taken pre- and post-intervention showed significant improvements in the facets of Non-Judge and Non-React and small increases in the other three mindfulness facets. The interviews suggested that the mindfulness course had beneficial effects on learning singing technique where participants reported improved aural and physical awareness, which helped them in learning new technique, applying it, diagnosing extraneous tension, problem solving, and transferring new knowledge from singing lessons into practice and performance. They also reported increased awareness of vocal sound, tone and text communication, which led to improved performance. In a rare mindfulness blind study element, participants' teachers were able to identify six of the eight eligible participants from their combined student register

(n=32). Student participants reported improved teacher/pupil relationships and concentration in lessons, which was also corroborated by their teachers in the blind study interviews. Practice behaviours also changed, with some participants reporting that mindfulness exercises before voice practice helped them to be more creative and spontaneous which lengthened their practice time. Others, however, shortened their practice as they said that being more focused improved the effectiveness and quality of their work. Participants also reported positive effects on performance anxiety, increased performance creativity, improvements when taking criticism, and in daily life. However, it was clear from comparing the questionnaire results with the qualitative responses of the participants that the questionnaire had not identified many of the subtleties discovered in the interviews. A more targeted measure may possibly have revealed musician-related nuances of learning mindfulness that were reported in interview. This study was not randomised and utilised no controls, so it was difficult to gain a more rounded viewpoint of the reported effects of the mindfulness intervention. As there was no longitudinal element, the study was unable to inform readers as to the longevity of effects. However, student singers reported positive benefits in both their music and general life experiences, and the study was unique in its field. This study was subsequently published in the *British Journal of Music Education* (Czajkowski & Greasley, 2015).

Blyskal (2018) investigated the effects of teaching mindfulness on learning singing technique and music performance anxiety by teaching 10 minutes of mindfulness within an hour's voice lesson and assigning mindfulness homework over eight weeks. Using inspiration from Czajkowski

and Greasley (2015) and exercises from the associated website (www.mindfulnessforsingers.co.uk) for the intervention, she ran a case study with three college student singers (two beginners and one vocal major). Her research design used qualitative post-intervention interviews of unspecified length, and she employed the FFMQ and the State-Trait Anxiety Inventory (as referenced in Blyskal; Julian (2011)) pre- and post-intervention. The participants' reports mirrored those found in Czajkowski and Greasley (2015) with increased focus in lessons, less distraction, and improved productivity. Participants reported that their physical awareness improved, and later questioning found vocal technique improvements in releasing physical tension; improved focus when identifying new sensations; and better ability to learn effective breath control. Participants also reported reductions in general life stress and performance anxiety, and all participants' results improved on the STAI-Y measure. This study only utilised three participants, however, and it is not known who taught the singing lessons and the level of their mindfulness training experience, or the reflexivity of the independent graduate interviewer. Using a separate interviewer meant that many areas of interest to the researcher were not investigated and there was no qualitative or quantitative independent verification of improvements from outside observers, performance measures, or controlled trials. Despite this, all the participants reported enjoying the experience and said they would continue doing mindfulness for their musical endeavours.

1.3 Summary

The evidence above has demonstrated that mindfulness has had a consistently positive effect in the clinical domain over the last 30 years since Jon Kabat-Zinn first devised the MBSR course in 1979. In particular, this has been evidenced in clinical studies utilising patients with clinically diagnosed depression and anxiety, both of which regularly affect musicians as students in education and as professionals. Further research in the educational domain has also shown positive effects of mindfulness training on students at university, particularly in relation to stress and anxiety as well as academic outcomes. Research in the sports performance domain, which has many of the same stressors as the music world – such as developing complex physical movement and high levels of demanding performance skills – has also noted the benefits of teaching mindfulness to athletes.

The vast majority of contemplative research in the music domain has been employed to address music performance anxiety. This research, coupled with that from the clinical domain, suggests that teaching mindfulness to musicians should have a positive effect on those with MPA. However, there is almost no empirical research investigating the effects of mindfulness, or other contemplative interventions, in other areas of a musician's life, such as practice, learning musicians' skills, creativity, in the music studio or on other aspects of performing. The Mindfulness for Singers pilot study suggested the types of benefits that teaching mindfulness to musicians might engender, but the study only employed a small handful of singers and left further questions. Would the benefits experienced by university singers be similar to other musicians, such as instrumentalists or vocalists studying in other institutions?

Would there be other effects from learning mindfulness in performance as suggested by Langer et al. (2009), or increased enjoyment of performance as suggested by Hribar (2012) on these wider demographics? Would improvements in mindfulness enhance musicians' skills, such as listening as suggested by Anderson (2012) and Diaz (2013), or improvisation as suggested by Edwards (2014)? Would there be an effect on teacher/pupil relationships, learning instrumental technique, or in lessons? Would a targeted mindfulness for musicians measure be more sensitive to music-specific mindfulness changes over the course of an intervention?

It is possible now to access mindfulness courses across the world, in mainstream education, in universities and conservatoires, and even online. Research suggests that musicians might benefit from mindfulness courses, but it is important to test training programmes empirically and provide evidence for interventions in music education (Clark & Williamon, 2011). In order to address this gap in the research, this thesis describes the implementation of two studies to investigate the musician-specific effects of mindfulness on musicians in education.

Chapter Two - Methodology

This chapter will outline the research aims, the theoretical approach and the research methodology used in this PhD. It will also specify the approaches taken to address the research questions, and provide an overview of analysis techniques, author reflexivity, and ethical considerations.

2.1 Research aims

This research attempts to address the following over-arching question: What, if any, are the effects of teaching mindfulness to student musicians?

There are two broad aims of the current research that relate to the mindfulness training of music students in higher education. The first seeks to investigate what, if any, are the musician-specific benefits of teaching mindfulness to group of different instrumentalists at a conservatoire and, more specifically, through a replication study to singers at a conservatoire and a university.

The second aim is to discover what, if any, mechanisms are at work, when teaching mindfulness, that deliver benefits to music students.

2.2 Theoretical approach

Due to historical research in the life sciences working on the principles of independent observation and measurement and the idea that there is a reality to be discovered, a large amount of psychological research into social and behavioural issues over the past 100 years has relied on positivist approaches (Morgan, 2007). In a similar effort to be taken seriously by the scientific community, mindfulness research since 1979 (see Chapter 1,

Section 1.1.1) has also relied on the positivist paradigm and seems reluctant to change (Van Dam et al., 2017). These positivist approaches have been useful in order to establish mindfulness, a psychological construct based on ancient wisdom, as a topic of serious scientific study. However, in the later part of the 20th century, new paradigms have developed with a different ontology and epistemology, such as constructivism and interpretivism; the latter proposes that there are multiple realities, that context is important, and that the researcher is an intrinsic and subjective part of the research process (Doyle, Brady, & Byrne, 2009). Wagner, Kawulich, Garner, and Botha (2012) suggested that these paradigms were well suited for exploring and understanding human and social issues. Koenig (2012) posited that such world views were ideal for spiritual and health research, particularly in the early stages because the data from these types of studies could be used to develop quantitative measures in order to study the phenomena utilising larger demographics. Koenig (2012) went on to say, however, that a mixed method approach would obtain the full picture of the phenomenon under investigation because, as well as quantitatively verifying truth and predicting outcomes, they are also able to elucidate qualitatively how and why religious or spirituality phenomena explored in a research context affects people. For example, Lesiuk (2015, 2016) investigated a four-week mindfulness-based music therapy intervention on women with breast cancer (n=15). As well as testing the effects of the intervention on cancer treatment-impaired cognitive function through a series of questionnaires, she also collected narrative accounts from the participants' homework assignments. The quantitative results demonstrated an improvement in mood and attention over the

intervention (Lesiuk, 2015) but not only did the rich data from the weekly narrative accounts reflect this improvement, the qualitative enquiry also helped Lesiuk understand how their process of mental perspective changed and why it benefitted them (Lesiuk, 2016). Despite the fact that it is considered impossible by some philosophical purists to combine two opposing paradigms (Niglas, 2000), mixed method studies are being performed by researchers and this method is now known as the “third methodological movement” (Doyle et al., 2009, p.175). However, before deciding on the appropriate philosophical approach to the research questions, it is wise to evaluate previous pertinent literature.

2.2.1 Positivism

It is important to note that, for many years, positivism has been considered the “gold standard” in mainstream psychology (Doyle et al., 2009). The positivist researcher/s in these cases viewed themselves as independent from their object of study and worked under the assumption that there is an objective theory that can be deduced using measuring instruments. With a similar mindset, mindfulness researchers have attempted to define and operationalise mindfulness in order to develop, validate and test measuring instruments which have then been used to observe the effectiveness of mindfulness interventions on different populations (Baer et al., 2006; Brown & Ryan, 2003; Buchheld, Grossman, & Walach, 2001). They are often used in conjunction with clinical measures that can investigate levels of stress, anxiety, and depression (Gotink et al., 2015).

In line with much psychological research, many music and contemplative studies are fully quantitative (e.g. Farnsworth-Grodd & Cameron, 2013; Steyn et al., 2016) or dominated by quantitative methods in design (e.g. Khalsa et al., 2013; Stern et al., 2012). They investigate the effects of mindfulness or contemplative training on MPA and/or psychological well-being or flexibility with musicians. They often use one or more mindfulness questionnaires combined with other targeted psychological measures (e.g. Kenny Music Performance Anxiety Inventory (KMPAI); Kenny, 2009), which are administered at different time points to test interventions (Butzer et al., 2015; Khalsa et al., 2009, 2013; Khalsa & Cope, 2006; Stern et al., 2012; Steyn et al., 2016) or perform cross sectional style surveys (Clevenger, 2015; Farnsworth-Grodd & Cameron, 2013; Serrano & Espírito-Santo, 2017). See Chapter 1, Section 1.2 for more information on these studies. However, reviews of contemplative studies based purely on positivist paradigms have noted that important contextual data, such as how and why an intervention has had a significantly quantifiable effect, are lacking (Van Dam et al., 2017). The use of a mindfulness questionnaire, for example, might give an understanding of whether a participant had increased in mindfulness over a period of time, defined and measured in a particular way, but it would not give any detail as to how, or why, or the context in daily life. Critics have therefore called for new methods of research that include other measurements of mindfulness such as qualitative (Hanley et al., 2016) or mixed methods approaches (Sauer et al., 2013).

2.2.2 Constructivism/interpretivism

Given that the nature of reality can be different for different people, and that ways of knowing and constructing knowledge can also vary, a rich, contextual study can delve deeply into the unique experience of each participant and thereafter, common threads can be gathered to build a knowledge base (Brantmeier & Brantmeier, 2016; Denzin & Lincoln, 2011; Lincoln & Guba, 1985). This is a useful paradigm for discovering the myriad of effects that may have been caused by an intervention or are part of an individual's personal life experience. However, qualitative research, which lacks the bias assurances inherent and expected in rigorous quantitative studies, needs to follow a high level of quality in order to be worthy of attention (Tracy, 2010). A good example of this sort of in-depth qualitative work can be seen in the work by Gaunt (2008, 2010, 2011), which explored the individual perceptions of music teachers and students in one-to-one instrumental tuition at a conservatoire. Using this approach in a series of three studies brought a multi-faceted viewpoint on the topic by triangulating individual, open-ended responses from the main stakeholders. It critically examined the underlying perceptions and assumptions that students and teachers make about each other, uncovered inherent dynamics of power between them, and demonstrated the need to re-evaluate this type of teaching paradigm in music conservatoires.

There is only one example of a purely qualitative mindfulness and music study in the previous literature. Newton (2015) investigated the effects of a mindfulness intervention on musicians' creativity (see Chapter 1, Section 1.2.2). The results suggested that the intervention had helped the three

participants to be more creative in composition and performing as a result of becoming more mindfully focused, attentive and less striving in attitude. Whether the effects reported by participants were due to improved mindfulness levels, however, is not clear because there were no quantitative or objective measures which tested if this newly designed intervention taught that which it was designed to teach. Using a reliable, tested mindfulness questionnaire can help to validate an MBSR/MBCT intervention taught by a new person or a newly developed MBI or MBSR/MBCT course with modifications. The questionnaire can give more reassurance that the changes reported in the qualitative process were due to the effects of the intervention and allows direct comparison with other versions of the same intervention in other studies.

2.2.3 Pragmatism

Mixing paradigms has been fraught with philosophical confusion and “paradigm wars” (Doyle et al., 2009; Niglas, 2000) with the understanding that rival philosophical underpinnings of the positivist/post-positivist and interpretive/constructive paradigms were polar opposites and could not be mixed. However, as Morgan (2007) suggests, it is not possible to be completely objective or completely subjective. All research is, therefore, realistically situated along a continuum between the two philosophical poles (Creswell, 2003). Paradigms have had to adapt to the changing world of research over time which can even be evidenced, for example, by the way that positivism had to be subdivided into post-positivism thus suggesting that paradigms are not abstract and timeless. Pragmatism as a philosophical

underpinning is an approach often advised by mixed methods researchers (Creswell, 2003; Doyle et al., 2009; Feilzer, 2010; Johnson, Onwuegbuzie, & Turner, 2007; Morgan 2007). The connection of data is by abduction (i.e. a prediction made from data), and the relationship to the research process is via intersubjectivity (i.e. the psychological relations between people). The inference from the data is not general to the whole population but could be transferable to other populations (Morgan, 2007).

Johnson et al. (2007) attempted to develop a definition for mixed methods by studying the definitions of 19 experts in the field. The researchers' final definition was the following:

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration. (p.123)

This definition requires further specificity, such as the reasons for its adoption and the typology employed. Mixed methods are used to mitigate against bias by collecting data through different sources or methods (Jick, 1979), as this can show diverse and complementary viewpoints that strengthen the evidence gathered. This data can then be "triangulated" by studying the same phenomena with a combination of methodologies (Denzin, 1989), for example, by data triangulation and/or methodological triangulation. This could be particularly useful for mindfulness research. As Van Dam, a regular critic and assessor of mindfulness questionnaires, explained, this type of broader data gathering would also address critics of the field of mindfulness research, who have seen almost exclusive reliance on a logical positivist viewpoint (Van Dam

et al., 2017). Much has been lauded in social media and the news about the benefits of mindfulness but most of this reporting is based on research with singular, and in some cases, weak methodological foundations (Sauer et al., 2013). In fact, the field of psychology as a whole has had to address this issue with calls for more rigorous research methods and replication studies (Van Dam et al., 2017). A mixed methods study will offset weakness in a singular research design and provide a complete and more comprehensive picture. It can also be used to help instrument development. For example, data gathered can be incorporated into a questionnaire or used to explore the data gained from qualitative collection in more depth and context (Padgett, 2017; Rowan & Wulff, 2007). Defining typology in a mixed method study is also important as such research methods are flexible. To this end, experts have made several attempts to operationalise and categorise typologies of mixed methods studies. Leech and Ongwuegbuzie's (2009) typology of a mixed methods study is mainly a matter of three considerations: the timing of the data gathering as either concurrent or sequential, the weight given to either quantitative or qualitative data, and the point at which the methods are mixed within the study.

In looking at previous relevant literature (Chapter 1, Section 1.2), some of the more thorough and rigorous music and contemplative, or music and cognitive mindfulness studies have used mixed methods with a variety of typologies. For example, Langer et al. (2009) collected a large volume of qualitative written responses in their study with orchestras and choirs and quantified them in what might be described as a "primitive" triangulation rather than a fully mixed methods approach (Jick, 1979). A number of studies have

employed quantitative-dominant mixed-method style studies to test contemplative and cognitive mindfulness interventions on psychological well-being (Hribar, 2012), music listening (Diaz, 2013), and MPA, music performance and music education (Chang et al., 2003; Hribar, 2012, Juncos & Markman 2015; Juncos et al., 2017). In comparison, Czajkowski and Greasley (2015) used a qualitative-dominant mixed-methods design to investigate the effects of a mindfulness intervention on university vocalists.

It is the multifaceted viewpoints and more rounded, balanced reporting of phenomena evidenced in the above mixed-method studies that led to a similar approach being adopted for the projects in this thesis. Due to the paucity of previous literature, the current research was weighted towards gathering qualitative data. Quantitative data were used to assess the effectiveness of the intervention in conventional ways. The qualitative data and the Mindfulness for Musicians questionnaire (see Section 2.3.2) were combined to investigate firstly whether there were any effects from learning mindfulness in their lives as musicians and, if so, how and why the intervention had changed participants' experiences.

To summarise, using Leech and Onwuegbuzie's (2009) typology, this thesis used pragmatic-based, mixed, sequential, and qualitative-dominant research designs to investigate the benefits of teaching mindfulness to music students. This approach was taken in order to adopt a multi-faceted viewpoint of the phenomena under investigation. The approach provided a validated and tested measure of the effects of mindfulness interventions on students' levels of mindfulness. It also delivered a deep, contextual viewpoint of the self-

reported changes from stakeholders and investigated mindfulness mechanisms behind these benefits specific to music-related activities.

2.3 Specific methods

2.3.1 Sampling

For the first study, a “no restrictions” convenience sample was drawn from interested GSMD music students who chose to take part in one of the four Mindfulness for Performing Arts Students courses that were run during academic years 2015-2017. They were offered £5 remuneration for completed questionnaires and £10 for interviews. This was necessary to encourage busy student participants to engage with the geographically distant nature of the research gathering process as personal reminders from the researcher were impossible, given that the participants resided in London and the researcher in Leeds. The generalisability and transferability of the results of this study was limited by the sample whereby only those who completed the course and who self-selected for study had data entered into the project. However, as an initial investigation using data gathered over four iterations, this meant that the data covered a wide variety of instrumentalist types.

In the second Mindfulness for Singers (MfS) study, a convenience sample of experimental and control student vocalists was gathered at the university and the local conservatoire. Ideally, student participants were encouraged to take part if they were having vocal lessons with a teacher at their institution so that their teacher could be part of the blind study, but this restriction was not enforced. The teacher sample was identified by experimental and wait-list control participants but, for reasons of quality

assurance, as singing teaching in the UK is an unregulated industry, only teachers who were employed by their relevant institution were invited to take part. Experimental participants were offered £20 total remuneration or a breakdown for completing research parts of the study; control participants were offered £4 for completion of questionnaires. All teachers bar one agreed to take part as blind participants. They were offered pro-rata remuneration for their time in interviews but none accepted. This study ran over 2 years, utilised students from a university and a conservatoire, and used a far more rigorous methodology than the previous pilot study. As a result, the findings should be transferable to many student singers at this level.

Self-report

Self-report measures, either by questionnaire or interview, are the key data collection methods used in the current research. Therefore it is important to consider self-report accuracy and reliability especially as it has been recognised historically that participants are not always accurate when self-reporting data (Nisbett & Wilson, 1977). Bhandari and Wagner (2006) performed a comprehensive literature search (articles, n=42) on the accuracy of self-reporting for a variety of populations. The research included in the review compared the accuracy of self-reported utilisation of health care services with other sources, such as administrative records. As a result of their investigations, they suggested the following factors to facilitate accurate self-report that researchers should consider when designing studies: the sample population and their cognitive abilities, the socially acceptable nature of the topic under investigation (e.g. topics about child abuse are not always socially acceptable), the questionnaire design, the mode and time frame of

data collection, the use of memory probes, and the self-report time-frame, which should ideally be no longer than 6 months due to memory recall deterioration. These factors were considered in both of the current studies which utilised highly educated, non-clinical participants who were asked to complete their interviews and the validated and tested questionnaire (FFMQ; Baer et al., 2006) within one week of completing a socially acceptable mindfulness course.

Social desirability bias, where participants may feel that they have to answer questions in an interview in a way that would be viewed as favourable by the interviewer, was considered in the current studies. At GSMD, the researcher was not known personally to any of the participants and most interviews were gathered over a large distance using Skype or a telephone with an explicit information that all responses were confidential and would be anonymised at source. In the MfS study, social desirability bias was counteracted as much as possible by using questionnaires, an anonymous diary method, and triangulation of student participants' data using teacher participants who were unknown to the researcher and had no vested interest in the intervention.

2.3.2 Questionnaires

In order to help support the assumption that the mindfulness course improved levels of mindfulness in participants, it was important to test this using a mindfulness measure. There are a growing number of mindfulness measures available (Andrei, Vesely, & Siegling, 2016; Chiesa, 2013; Hindman, Glass, Arnkoff, & Maron, 2014; Park, Reilly-Spong & Gross, 2013;

Sauer et al., 2013) and the reasons for choosing the Five Facet Mindfulness Questionnaire are discussed below.

Five Facet Mindfulness Questionnaire

The Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) (Appendix A) was used in both the GSMD and MfS projects. It is one of the more frequently used mindfulness scales (Andrei et al., 2016) and has demonstrated the highest ratings on internal consistency and construct validation in comparison with other mindfulness measures, in a systematic review by Park et al. (2013).

The FFMQ is the culmination of an examination of the facet structure of five existing mindfulness questionnaires: the Cognitive and Affective Mindfulness Scale (CAMS; Feldman et al., 2007), the Freiburg Mindfulness Inventory (FMI; Buchheld et al., 2001), the Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, & Allen, 2004), the Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003) and the Southampton Mindfulness Questionnaire (SMQ; Chadwick et al., 2008). The factor analysis of the items within these measures found five facets of mindfulness: Observe, Describe, Act with Awareness, Non-Judge, and Non-React. Other mindfulness questionnaires only measure specific subscales or facets of mindfulness, such as the MAAS (Brown & Ryan, 2003), which measures awareness and attention. The FFMQ, however, covers a broader operationalisation and is considered a more comprehensive and integrated measure in its coverage of the different facets (Andrei et al., 2016; Bergomi, Tschacher, & Kupper, 2013; Lilja, Lundh, Josefsson, & Falkenström, 2013; Noguchi, 2017). The scale has 39 items and the Likert scale range is from 1 to 5. The total score, therefore,

ranges from 39 to 195. The anchors are “never or very rarely true”, “rarely true”, “sometimes true”, “often true”, and “very often or always true”.

The psychometric properties of the FFMQ have been favourably tested with a wide variety of populations throughout the world (see Table 2.1). Through repeated testing, the FFMQ has been shown to be an effective tool for measuring mindfulness over a period of time with meditators, but for those who are non-meditators, it is recommended that the results should be reported as separate facets rather than as a combined total score (Lomas et al., 2017). This is because the Observe facet items are understood more clearly once one has done mindfulness and meditation rather than before. Confirmatory factor analysis has shown that a pre-intervention four-factor fit for non-clinical non-meditators followed by a post-intervention five-factor fit measures the non-meditator demographic best (Baer, 2016; Gu et al., 2016; Lilja et al., 2013; Sugiura et al., 2012; Veehof et al., 2011; Williams, Dalglish, Karl, & Kuyken, 2014).

Table 2.1 *Countries within which the FFMQ has been translated, tested and verified with different populations*

Country	Reference	Cronbach α range
English	Baer et al., 2006	0.75 to 0.91
Spain	Calvete & Royuela-Colomer, 2016	0.75 to 0.91
	Cebolla et al., 2012	0.81 to 0.91
Holland	Bohlmeijer, Klooster, Fledderus, Veehof, & Baer, 2011	0.73 to 0.91
	de Bruin, Topper, Muskens, Bögels, & Kamphuis, 2012	0.70 to 0.87 (NM) 0.72 to 0.89 (M)
	Veehof, Klooster, Taal, Westerhof, & Bohlmeijer, 2011	0.69 to 0.90
Norway	Dundas, Vøllestad, Binder, & Sivertsen, 2013	0.69 to 0.95
France	Heeren, Douilliez, Peschard, Debrauwere, & Philippot, 2011	0.76 to 0.89
Sweden	Lilja et al., 2011	0.75 to 0.90
Japan	Sugiura, Sato, Ito, & Murakami, 2012	0.67 to 0.85
China	Deng, Liu, Rodriguez, & Xia, 2011	0.45 to 0.84

NM = Non-meditators

M= Meditators

The FFMQ has previously been used by contemplative studies utilising university and advanced music student participants (Butzer et al., 2015; Czajkowski & Greasley, 2015; Farnsworth-Grodd & Cameron, 2013; Steyn et al., 2016) suggesting it as a good fit for the current research. Hribar (2012) used the MAAS, which would suggest a good parallel for the current GSMD study. However, as the FFMQ has already incorporated the MAAS as part of its development and considering that the MAAS is best used as a short, straightforward measure of mindfulness, the FFMQ was chosen for use for this study to provide a more in-depth analysis.

Mindfulness for Musicians questionnaire

The Mindfulness for Musicians (MfM) questionnaire (Appendix B) was developed as a response to FFMQ triangulation with interview findings during the MfS pilot study (Czajkowski, 2013) (see Chapter 1, Section 1.2.2). In this previous study, the FFMQ was used both pre- and post-intervention to measure changes in general mindfulness over the duration of the MfS course. In the interviews, participants in Czajkowski (2013) spoke about the experience that learning mindfulness had on them as musicians but the FFMQ did not identify many of the music-related experiences, which was possibly due to its general nature. In order to investigate this hypothesis, a musician-targeted questionnaire was designed for this PhD using data gained from the pilot study to register student musician-related experiences from mindfulness interventions that might be missed by the more general FFMQ.

In developing the MfM, each FFMQ item was coded with its facet and then re-combined into facet groups. Examining the wording of the items in each facet group, combined with a description of that facet, brought into clarity the type of keywords and concepts that should be employed in wording the items for the MfM questionnaire. For the Observe facet, the keywords were “notice” and “pay attention”. For the Describe facet, the keywords were “words” and “describe”. Act with Awareness keywords were “distracted, awareness, attentive, automatically, and doing”. The Non-Judge concept was more difficult to analyse. Here there seemed to be two groups of keywords “feelings, emotions, thoughts, thinking, images, ideas” against “self-criticise, good/bad, self-disapproval”. The same was discovered with the Non-React facet. Here there were similar initial keywords to the Non-Judge, “feelings,

emotions, thoughts, images” but this time against “not-react/react, get lost, taken over, pause, calm”.

It was decided to have 15 items because other short form FFMQ measures have 15 items (Baer, Carmody, & Hunsinger, 2012; Gu et al., 2016). The pilot study identified that mindfulness had particular effects on singers in three contexts: music lessons, music practice, and performance. The 15 items were therefore divided into three groups to cover these contexts. Each item used for Observe in the MfM used the same terminology, such as “notice” and “attention” as that used for Observe in the FFMQ. Each item for the Describe factor designed for the MfM used the FFMQ terminology of “words” and “describe”. This process was repeated for the three remaining factors: Act with Awareness, Non-React, and Non-Judge. One item representing each of the five facets was assigned to each context group (see Table 2.2). For example, for the facet Act with Awareness, there are three context specific items that address changes reported by the singers in Czajkowski (2013): “In instrumental or singing lessons, I always pay attention and never daydream or get distracted”, “I’m easily distracted when practising my voice or instrument,” and “I suspect that I usually perform on automatic pilot.” Just like the FFMQ, the MfM has 5 Likert scale anchors: never or very rarely true, rarely true, sometimes true, often true, and very often or always true. This meant that there was a potential total score range of between 15 and 75.

Negative and positive statement design is balanced in the FFMQ: nineteen items are negatively worded, and the other 20 are worded positively. The MfM took the same approach, making just over half of the items

negatively worded. The MfM is an original contribution for this PhD and is currently unvalidated and untested. The scoring sheet for both questionnaires can be found in Appendix C.

Table 2.2 *MfM measure design and item allocation*

Context/Facet	Music lessons	Music Practice	Performance
Observe	MfM item 6	MfM item 1	MfM item 12
Describe	MfM item 13	MfM item 7	MfM item 2
Act with Awareness	MfM item 3	MfM item 14	MfM item 8
Non-Judge	MfM item 9	MfM item 4	MfM item 15
Non-React	MfM item 5	MfM item 10	MfM item 11

The participants were asked to complete the FFMQ and then the MfM questionnaires to lead them from general mindfulness questions to music specific ones.

2.3.3 Interviews

A private one-to-one interview method was chosen to encourage participants to talk openly about their individual experiences as focus groups can encourage participants to be influenced by their peers. The interview is similar to a conversation in that it is verbal exchange between two persons but it is orientated towards gaining information from one party for the benefit of the other (Denzin, 1989). Semi-structured interviews were chosen for student and teacher experimental participants in both the current studies for a variety of reasons. In comparison to open-ended interviews, semi-structured interviews encouraged the conversation to happen within a pre-prepared timescale, which was important for busy students and teachers, and allowed the research aims to be addressed more effectively in the time available. In comparison to structured interviews, which tend to produce quantitative data,

semi-structured interviews allowed participants more flexibility in their answers, and also enabled the researcher to follow up interesting trains of thought, investigate novel areas, or clarify points (DiCicco-Bloom & Crabtree, 2006).

It is recommended to test semi-structured interview questions in a pilot study (Denzin, 1989) and this process was reported in the MfS pilot study (Czajkowski & Greasley, 2015). In that study, the questions provided a large amount of rich and contextual data so these previous questions were reused for the two current studies. The questions for the MfS study can be found in Appendix D. There were no major changes from the pilot study questions. Questions that had been specifically addressed to vocal students were modified to a general instrumental approach for the GSMD investigation (see Appendix E). The design of all the student participant interviews started with introductory questions about the practical experience of the course to put participants at ease and focus their minds. Participants were then asked if there had been any effects that they had noticed from doing the mindfulness course in their instrumental lessons, private practice, rehearsals and ensemble work, in performance or in general life. Sample questions included: Do you feel that doing this mindfulness course has affected your experience of learning to sing in lessons and/or practice sessions? Has learning to be more mindful had any effect (bad or good) on your life as an instrumental/voice learner that hasn't been covered above? The interview culminated in an important final question asking if they would recommend the course to other music students; this gave participants the opportunity to summarise their experience after their own reflective inquiry during the process of the

interview. In the MfS study, the teacher participant interviews started with a welcome and a reminder of what they had been asked to observe. Teachers were then told how many of their students had taken the mindfulness course and were asked if they could identify which students had participated. Depending on the answer, subsequent open interview questions investigated the areas wherein teachers noted changes and discussed the identified participants in more detail (see Appendix F).

In response to the self-report research mentioned above (Bhandari & Wagner, 2006), all interviews were completed as soon as possible after the interventions and, for the longitudinal element in the MfS study, no more than 3 months after the completion of the course in order to mitigate against retrospective bias or inaccuracies in reporting.

2.3.4 Diary method

An anonymous diary study was included in the MfS project. The strength of a diary study is that participants can “express feelings that otherwise would never be made public” and is “an immediate recording of experience” (Denzin, 1989, p.193). In order to gain an anonymous qualitative recording of participants’ real-time experiences in the MfS study, they were asked to keep a daily diary chronicling the amount of time taken doing mindfulness exercises and any thoughts or experiences. Each week they were provided with a prepared sheet to complete (see Appendix G) and were asked to return this at the beginning of the following week, putting the sheet face down in a pile near the door of the treatment room so that it was impossible for the researcher to know who had submitted each sheet. This diary was also

an opportunity for participants to highlight issues or problems they had with the mindfulness course or their reactions to it that they wished to be dealt with anonymously during the next week's session. It was hoped that participants would be diligent in filling in the forms and that data on minutes of mindfulness practice adherence could give an idea of how well participants had adhered to the suggested duration of practice of 10 minutes a day. However, the students knew this was a voluntary and anonymous element and many forms were not handed in. Nevertheless, although those that were submitted could not be used to evidence minutes and hours of mindfulness practice, they did provide a rich source of "moment by moment" anonymous qualitative data for analysis that offset potential bias arising from the interview study.

2.3.5 Replication

The replication of a novel intervention is a desirable process in scientific research in order to build a rounded generalisable scientific viewpoint (Edlund, 2016). This is particularly important in a nascent field where measures, methods, and interventions are not well known and a study cannot claim to be fully evidence-based if the research has happened at only one site with a small sample size (Drotar, 2010). Pilot studies are also often performed without rigorous methodology and are a good way of discovering if further research would be beneficial. It is necessary to do replications because there have been situations where replications have been performed and a large percentage have failed (Evanschitzky & Armstrong, 2013). However, there seems to be a dearth of replication, although there has been a call for it in the social sciences since the 1970s (Reed, 2014). A study of the call for

replication studies in neuroscience journals demonstrated that only 6% of the 465 journals encouraged the submission of replication studies, 8.6% discouraged them by emphasising novel submissions, and 0.6% actively refused replication reports (Yeung, 2017). However, some journals are starting to reverse this process by actively accepting replication studies (Edlund, 2016; Reed 2014).

In order to address the gap in the literature, the MfS project is a replication project in order to investigate the results of the MfS pilot study using a larger demographic and with a more rigorous methodology. If there is clear overlap between the findings of the two studies, this will give substantive support as to the efficacy of teaching mindfulness to singers in higher education.

2.4 Analysis

2.4.1 Quantitative

Quantitative data analysis was performed using SPSS. Reliability analyses were run on the questionnaire results for both the GSMD and MfS studies and are reported in those chapters (GSMD, see Chapter 3, Section 4; MfS, see Chapter 5). In both studies, normality tests were run in preparation for subsequent questionnaire analyses which dictated whether parametric or non-parametric tests were used. For both studies, within group pre- and post-scores were analysed using the appropriate tests. In the MfS study, additional independent baseline tests were run for the results from both institutions and for the conservatoire participants, ANOVA tests were run, with post-hoc tests where necessary.

2.4.2 Qualitative

Diary data, MfM responses, and interview data were analysed using thematic analysis (Braun & Clarke, 2006). This flexible method was used in the GSMD study because of the inductive nature of the research question. It was also employed in the current replication MfS study because thematic analysis had been used in the original MfS study. It is an appropriate method to explore the meaning and experience of participants in order to ascertain their personal reality and offer a rich description of the effects of mindfulness on them as musicians.

Braun and Clarke (2006) suggested a six-step process that is slow and methodical, moving back and forth between the different steps. Initially, the interview recordings were listened to in order to encourage familiarisation, and the data were transcribed. The participants' hand-written diary entries were read and transcribed, and their responses to the MfM questionnaire were investigated. If, over the course of the intervention, participants had increased or decreased an MfM item result by two or more Likert scale levels, this was noted. Then all the data were imported into NVivo software and re-read and coded in a systematic way. There was constant reference back to the transcripts and occasionally to the original recordings and diary entries to confirm that themes reflected the entire data set. Finally, specific pertinent examples of the data were chosen as illustration and combined with references to related literature during the writing up process to provide a scholarly response to the research questions. A more detailed description of each study's analysis can be found in the relevant chapters (GSMD, Chapter 3, Section 3.3; MfS, Chapter 4, Section 4.3).

The author completed all the analysis. A second coder was not employed in the process because there was no one available at the University of Leeds, where the analysis took place, with the requisite experiential knowledge of both mindfulness and music. Second coders can be both a positive and negative influence on data analysis. In a positive way, they can bring different perspectives and provide discussions to refine the process. However, in a negative way, their differences in skill level, the reduction of flexibility in the back and forth process (recommended by Braun and Clarke (2006)), and the extra time needed for them to take part could have been detrimental to the process (Berends & Johnston, 2005). Also, a codebook cannot replace years of experience in mindfulness, in teaching and being a student of music at a university and conservatoire, all of which were skills brought to the process by the author.

2.4.3 Reflexivity

This section addresses the reflexivity of the researcher in order to allow the reader to view the results through the correct lens and enhance the studies' credibility (Golafshani, 2003; Leung, 2015; Noble & Smith, 2015). It is also important for the reader to be aware of the effect of previous research on the formulation of the studies in this PhD. Specifically, the quasi-experimental, single-blind, mixed methods MfS pilot study design and findings greatly informed the process of this current MfS study's controlled longitudinal replication. Hribar's (2012) unpublished work also had a large influence on the planning of the GSMD project to which it sits as a parallel study.

On a personal level, I am originally a french horn player and pianist trained at a university, and a vocalist trained at a music conservatoire, giving me an awareness of the different types of training experienced at the two types of institution. I have taught voice for over 20 years and, during that time, I taught for eight years at a university which gives me insight into vocal teaching at this level. As a mindfulness practitioner since 2006, I have applied mindfulness as both a performer, a teacher, and in my own continued professional development as a singing student. I am therefore well situated to investigate mindfulness phenomena with this demographic. However, I was mindful of this personal experience and took care in both the design of the projects and whilst facilitating interviews to avoid imposition of my subjective opinions or viewpoint on participants. In order to do this, for example, the MfS study design included anonymous diary feedback and a teachers' blind study. In addition, during the delivery of the MfS course, I impressed on participants that I wanted them to practise mindfulness before singing-related activities because I wanted to know their experiences, whatever they may be. During interviews, I took care to follow the direction the participants took whilst they answered questions. More information about my development of the Mindfulness for Singers intervention is provided in Chapter 4, Section 4.2.5.2.

2.4.4 Ethics

Ethical approval was obtained for both studies from the University of Leeds Ethics Committee (GSMD, PVAR14-101, Appendix H; MfS, PVAR 15-008, Appendix I). Ethical approval for the collaborative study at the GSMD was obtained from their Research Ethics Committee (see Appendix J) and

approval for the study in collaboration with Leeds College of Music was granted by the Head of Student Services and the Head of Postgraduate Studies (see Appendix K), as they do not currently have a designated ethics committee.

Participant information sheets (GSMD, see Appendix L; MfS student experimental participants, see Appendix M; MfS teacher participants, see Appendix N; MfS control participants, see Appendix O) and in-person group information provided by the researcher fully informed interested participants as to the purpose of the project, why they were chosen, their part in the process and of the option to withdraw themselves or the data from the research at any point up to a given date. They were told the benefits and disadvantages of taking part and were assured that the personal information they provided would be treated confidentially and held under the terms of the Data Protection Act. They were informed that any data they gave would be anonymised at source, kept safely, and would be destroyed 10 years after publication. Written consent was also requested from all participants (GSMD, see Appendix P; MfS student experimental participants, see Appendix Q; MfS teacher participants, see Appendix R; MfS control participants, see Appendix O).

A potential ethical issue was confidentiality and anonymity, particularly for the MfS study where there were both teacher and student participants involved. Both parties were asked not to talk to the other until after the study was completed and both were assured that interviews would be anonymised at source and that confidentiality would be maintained. Participants in the GSMD study were also informed in the relevant participant documents and

verbally at the beginning of interviews that their data would be confidential and anonymised at source. The use of the computer to do research at home was a potential ethical issue and all information needed to process the participants' data, such as phone numbers, email addresses, and connections between teacher and student participants, was kept both on the University M: drive behind a password and on the researcher's home computer behind two different passwords.

2.5 Summary

This chapter has described the research aims and considered the extant theoretical and methodological approaches to studying music and contemplative studies. This was done in order to develop two research designs to explore the effects of mindfulness on musicians in higher education. Mixed methods approaches used for both studies were underpinned by a pragmatic theoretical approach in order to measure both the effectiveness of the interventions used in the two studies and also to explore the deep, complex and contextual effects in the personal lives of the participants over a two-year period. The following chapters report the process of these research projects and present the results in detail.

STUDY ONE: MINDFULNESS FOR INSTRUMENTALISTS

Chapter Three – Mindfulness for musicians: The effects of mindfulness training on students at the Guildhall School of Music and Drama

3.1 Introduction

There is very little research exploring the effects of a mindfulness course on music students. This study attempts, therefore, to explore the following research question: What are the effects of teaching mindfulness to student musicians? The only other known research utilising this body of students with this type of intervention was performed by Hribar (2012) who found benefits of learning mindfulness on students' psychological well-being and music performance anxiety (see Chapter 1, Section 1.2.1). It is anticipated, therefore, that the current study will find similar benefits of learning mindfulness for musicians on their well-being and MPA. However, there is far more to being a student musician than experiencing well-being and acceptable levels of MPA. As a result of the pilot Mindfulness for Singers study (Czajkowski, 2013), it is predicted that there may be effects for instrumentalists in other music-specific contexts but these are, at present, unknown. This study, therefore, aims to discover the effects of learning mindfulness on students' music-specific experiences as educational, instrumental learners (e.g. lessons, music practices, performance examinations). A secondary aim, should the first produce effects, would be to explore the possible mechanisms behind these effects.

3.2 Method

3.2.1 Ethical approval

After informal negotiations with the conservatoire (GSMD) and permission from the lecturer of the Mindfulness for Performing Arts Students course (MfPAS), ethical approval was gained from Leeds University and the GSMD (Appendices H & J).

3.2.2 Participants

In October of each year, the MfPAS course runs a taster session for that year's new prospective student intake. In October 2015 and October 2016, the author visited the GSMD and introduced the research to prospective participants at these taster sessions. GSMD students who chose to take the MfPAS course were formally invited to take part in the research at their first MfPAS session by the course leader.

Sixty-two participants started the course, 48 completed the course and 35 consented to be study participants and completed the pre-interview questionnaires and documentation. Twenty-five participants completed the second questionnaire (male $n=7$, age range=18-38 years, mean age=23, $SD=4.89$, median age=22) and 21 of those (male $n=6$) took part in semi-structured interviews.

Participants are detailed in Table 3.1.

Table 3.1 *GSMD interview participants' details*

Name	Gender	Class	Age	No. of classes	Instruments
Gordon	m	GSMD1	19	8	Jazz saxophone/Tuba
Inga	f	GSMD1	31	8	Piano
Peter	m	GSMD1	20	5	Jazz double bass/Guitar
Helen	f	GSMD1	24	7	Voice
Harry	m	GSMD1	24	4	Piano/Voice
Elizabeth	f	GSMD1	25	7	Voice
Chloe	f	GSMD1	22	8	Voice
Petra	f	GSMD2	23	5	Piano
Leonie	f	GSMD2	26	6	Voice
Adelina	f	GSMD2	19	7	Violin
James	m	GSMD2	22	7	Piano/Guitar/Percussion
Fantine	f	GSMD2	20	7	Voice
Suki	f	GSMD3	19	8	Violin/Piano
Paul	m	GSMD3	19	7	Piano/Double bass
Marguerita	f	GSMD3	19	8	Viola/Piano
Tony	m	GSMD3	18	7	Electronic music/Piano
Sheila	f	GSMD3	34	7	French horn
Katyia	f	GSMD3	21	6	Flute/Saxophone
Carolina	f	GSMD4	38	7	Violin
Karen	f	GSMD4	21	7	Clarinet/Voice
Daphne	f	GSMD4	23	8	Violin

No. of classes = number of mindfulness sessions attended.

All names listed are pseudonyms.

3.2.3 Materials

The Five Facet Mindfulness Questionnaire (FFMQ) (Appendix A) and the Mindfulness for Musicians (MfM) questionnaire (Appendix B) were both administered to explore the effects of the mindfulness course on the student musicians. The FFMQ, a 39-item measure, was developed using a factor analysis of five mindfulness questionnaires (Baer et al., 2006), and has been shown to be a popular, consistent, sensitive and valid measure of mindfulness-based interventions (Christopher, Neuser, Michael, & Baitmangalkar, 2012). The MfM is a 15-item measure based on the format of the FFMQ. It was developed in response to the Mindfulness for Singers pilot study (Czajkowski & Greasley, 2015) where participants disclosed musically-related experiences that were not registered by the FFMQ, possibly due to its general nature. The MfM is similar to the FFMQ except that all the statements are targeted to a musician's experience rather than general life experiences. Further information about both these measures can be found in Chapter 2, Section 2.3.2.

3.2.4 Design

The study is a non-randomised non-controlled repeated measures intervention design with post-intervention semi-structured interviews.

3.2.5 Procedure

This research covers four iterations of the MfPAS course over two years: autumn term 2015 (GSMD1), spring term 2016 (GSMD2), autumn term 2016 (GSMD3) and spring term 2017 (GSMD4) (see Table 3.1 above).

Music students studying at the GSMD pay to take part in the MfPAS course. Participants from the course were invited to take part in the study. The MfPAS lecturer requested to administer the research documentation herself to maintain the cohesiveness and privacy of each group. She administered the Five Facet Mindfulness Questionnaire (Appendix A), Mindfulness for Musicians Questionnaire (Appendix B), Participant Information Form (Appendix L), Participant Consent Form (Appendix P), Participant Personal Details Form (Appendix S), and Participant Questionnaire Data sheet (Appendix T).

The FFMQ (Baer et al., 2006) (Appendix A) and MfM (Appendix B) were administered pre- and post-MfPAS to assess the effects of the mindfulness course. Participants completed documentation and measures either on paper or online using the Bristol Online Survey (BOS) platform. The BOS is recommended by Leeds University because data were stored within The European Union and was protected by a password system.

The MfPAS course was a targeted MBSR course administered by a trained mindfulness teacher ("CfMRP - Bangor University," 2016) who is also

a highly experienced professional pianist. It consisted of 8-weekly 2-hour musician-targeted psychoeducational sessions, which taught focused and open monitoring meditations, involved group discussions, and included a 45-minute formal daily practice regime and informal weekly tasks. The sessions were delivered in groups of no more than 20 people and were held at the same venue and on the same evening each week.

Within 2 weeks of the end of the course, interview participants took part in one-to-one interviews of 20-40 minutes' duration with the researcher either face-to-face, by Skype, phone or Face Time. The interview questions (see Appendix E) were ordered with general questions first to enable participants to adjust to the interview process and covered topics such as general experience of doing the course and experiences of home practice. Then questions were asked which particularly addressed the research topic and covered the effects of mindfulness in lessons, music practice, relationships with teachers and in ensembles, and performance issues, such as nerves and stage experiences. Finally, participants were encouraged to summarise their experience in a final question asking whether they would recommend the course to other musicians and, if so, why.

Participants in GSMD1 were reimbursed £10 for interviews. Due to poor post-questionnaire completion in GSMD1, subsequent GSMD participants were also reimbursed £5 for completing both questionnaires and £10 for interviews. Both Leeds University and GSMD ethics committees approved this amendment in December/January 2015 (Appendices U and V).

3.3 Analysis

Quantitative data were scored (Appendix C) and analysed using SPSS.

All participants' names were anonymised, each interview was heard in its entirety to gain an overall awareness of the material and was then fully transcribed and analysed following the principles of thematic analysis (Braun & Clarke, 2006). The process involved several readings of the transcripts. Transcriptions were then coded in NVivo Software and the results analytically clustered to create themes. These themes were tested against the data a second time and revised where necessary.

3.4 Quantitative results

The scores on the FFMQ (see Table 3.2) and MfM (see Table 3.3) questionnaires increased significantly (i.e. more mindful) for all factors after participation in the MfPAS course. The results were tested for normality and homogeneity of variance and all assumptions were met for the FFMQ. Therefore, paired t-tests were run for this questionnaire. However, only the facets of Describe and Non-Judge met these assumptions in the MfM so non-parametric related samples Wilcoxon tests were run on the variables Observe, Act with Awareness and Non-React and paired t-tests were run on Describe and Non-Judge. Reliability analyses were run on FFMQ and MfM in the facets of Observe, Describe, Act with Awareness, Non-React and Non-Judge for both the pre- and post-intervention scores from the 25 participants (Table 3.4). Cronbach alpha results for the FFMQ were generally good and in line with results found in other studies (see Section 2.3.2). The MfM had lower levels of reliability, which may be due to having far fewer items per factor. Potential

total score ranges for the FFMQ were between 39 and 195 and for the MfM they were between 15 and 75.

Table 3.2 Paired *t*-test pre- and post-intervention results for the Five Facet Mindfulness Questionnaire

FFMQ Facets	Pre Mean (SD)	Post Mean (SD)	t-test
Observe	26.04 (5.98)	30.92 (4.75)	$t(24)=-4.877, p<.001$
Describe	24.99 (5.82)	30.04 (5.43)	$t(24)=-4.039, p<.001$
Act with awareness	19.48 (6.62)	27.08 (6.22)	$t(24)=-5.702, p<.001$
Non-react	18.24 (4.19)	23.88 (4.83)	$t(24)=-5.330, p<.001$
Non-judge	20.88 (7.44)	27.72 (6.79)	$t(24)=-5.716, p<.001$

Table 3.3 Pre- and post-intervention results for the Mindfulness for Musicians Questionnaire using paired *t*-tests and Wilcoxon tests

MfM Facet	Pre Mean (SD)	Post Mean (SD)	t-test
Observe	10.20 (2.20)	12.36 (1.85)	$Z=-3.740, p<.001$
Describe	9.92 (2.45)	11.32 (2.06)	$t(24)=-2.662, p=.014$
Act with awareness	9.48 (2.22)	11.24 (2.35)	$Z=-2.954, p=.003$
Non-react	8.80 (2.93)	10.96 (1.93)	$Z=3.224, p=.001$
Non-judge	7.24 (2.80)	9.80 (2.65)	$t(24)=-3.949, p=.001$

Table 3.4 Reliability analysis on the GSMD pre- and post-intervention scores. Cronbach alpha results

Facets	Cronbach α	
	FFMQ	MfM
Observe Pre	0.851	0.338
Observe Post	0.814	0.528
Describe Pre	0.883	0.788
Describe Post	0.888	0.686
Act with Awareness Pre	0.920	0.487
Act with Awareness Post	0.923	0.721
Non-React Pre	0.711	0.683
Non-React Post	0.894	0.407
Non-Judge Pre	0.919	0.491
Non-Judge Post	0.909	0.541

3.5 Qualitative results

Participants talked about the effects of mindfulness in their general life and as music students. There were three major themes: effects on student life (see Figure 3.1), effects on instrumental learning (see Figure 3.2), and effects on performance (see Figure 3.3). The thematic figures are a visual representation of the relationship between themes and subthemes discussed in this chapter. The numbers represent a quantification of interview responses from the participants in order to demonstrate prevalence.

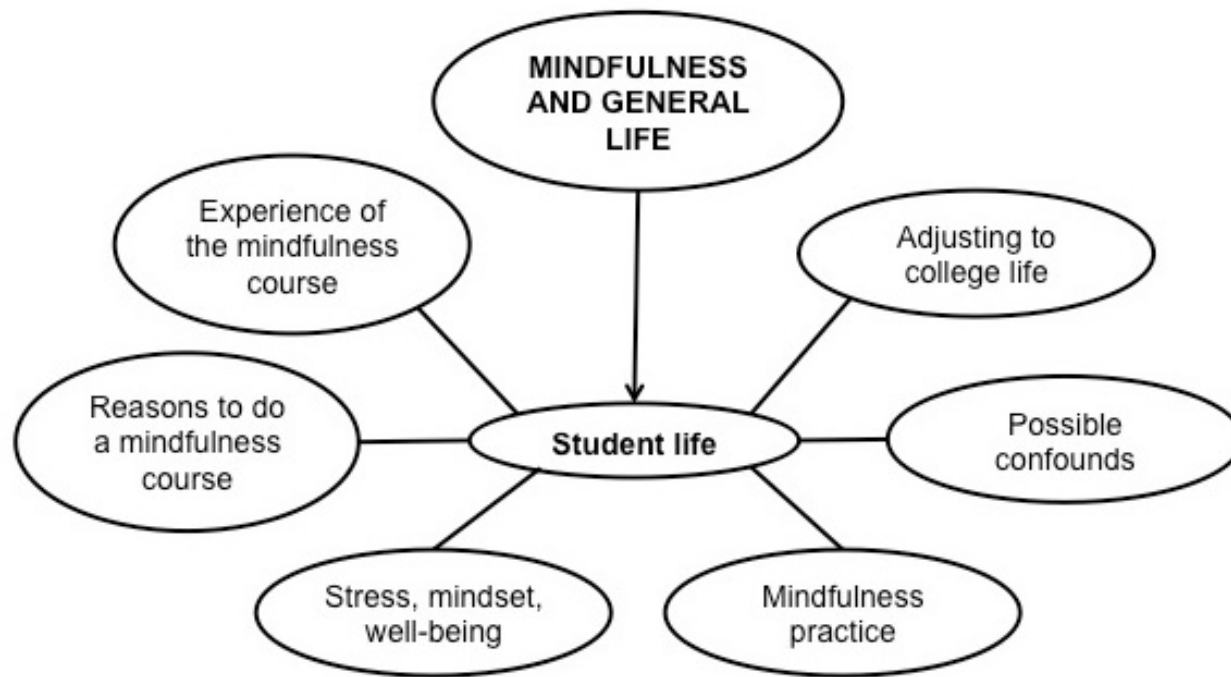


Figure 3.1 Thematic overview: Mindfulness and general student life.

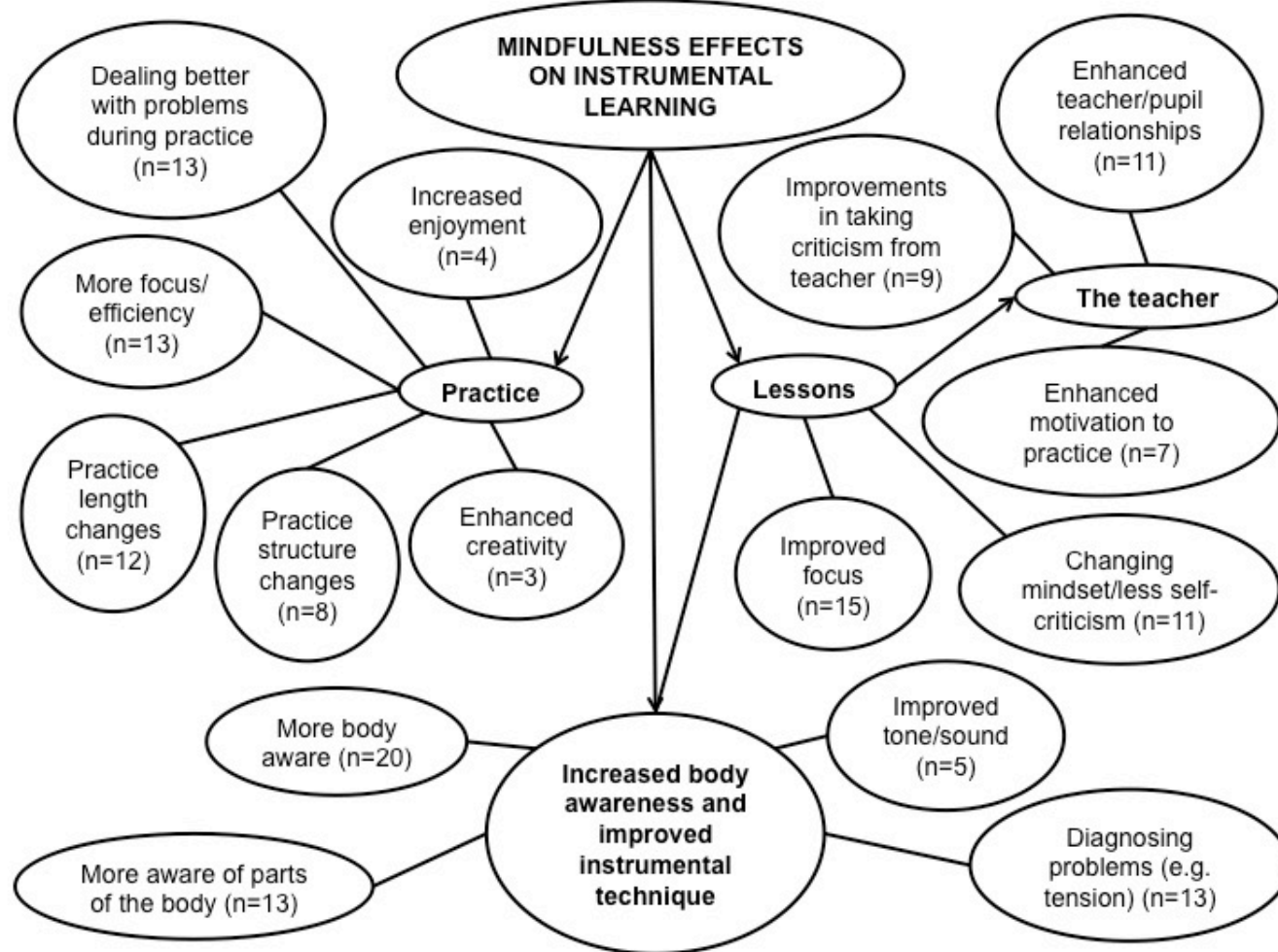


Figure 3.2 Thematic overview of the effects of mindfulness on instrumental learning.

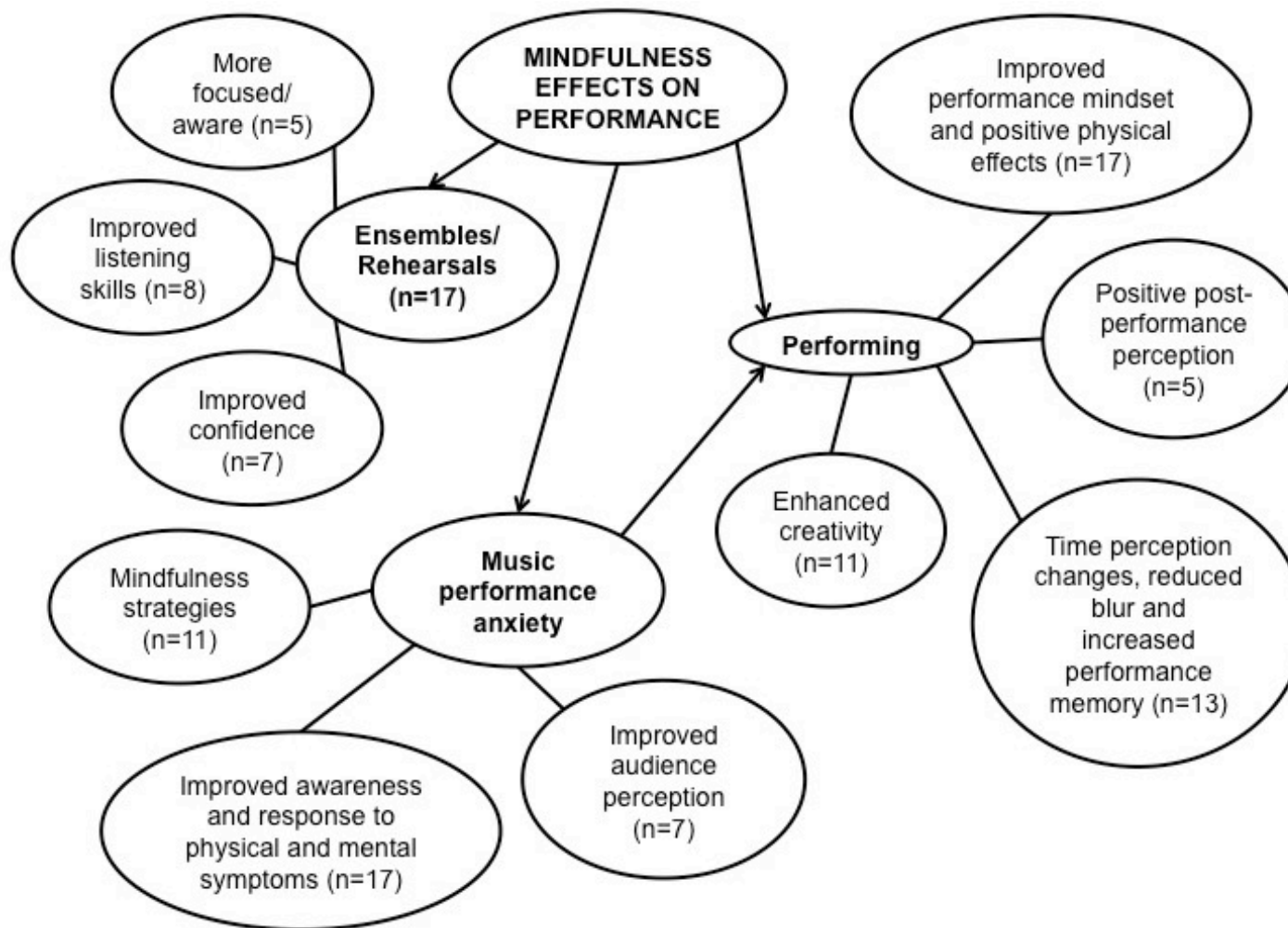


Figure 3.3 Thematic overview of the effects of mindfulness on performance.

3.5.1 Mindfulness and general effects

3.5.1.1 Student life

Reasons to do a mindfulness course

Participants gave a variety of reasons for choosing to do the mindfulness course. Eight decided to take part due to emotional distress such as general anxiety (Chloe, Elizabeth, Petra, Helen, Marguerita, Paul, Tony, Carolina). This finding concurs with the main reason found in Pepping, Walters, Davis, and O'Donovan (2016) who asked, amongst a variety of questions, "Why did you first choose to start practicing mindfulness meditation?" to 190 mindfulness participants from a university aged between 17 and 53 ($M=21.34$, $SD=5.76$).

Participants in the current study also mentioned seeing posters around the GSMD or heard mindfulness recommended (Adelina, Karen, Daphne, Katyia, Harry, Fantine, Leonie) by tutors (Harry, Daphne, Fantine, Leonie) and friends (Katyia). Some participants wanted to develop personal and musician skills (Chloe, Katyia), where personal skills were specified as self-control, efficiency, focus, and concentration (Sheila, Suki, Daphne, Carolina, Chloe), and Sheila also wanted to learn how to "chill". Harry was particularly interested in how the brain worked, as he enjoys teaching.

The Mindfulness Course

When asked about their experience of doing the mindfulness course, the participants offered a variety of responses covering the session time, session length, course content, their experience within the groups, and their responses to the ending of the course.

Participants commented on the time of day that sessions took place (Harry, Petra, Helen, Peter, Sheila, Suki, Karen, Inga). They felt that the evening was not good (Harry, Sheila, Helen, Petra, Peter) due to timetable clashes (Harry), they struggled with motivation to attend (Sheila) and were tired (Peter, Petra). Peter found it easy to fall asleep in long practices. Some liked evening sessions as they felt they could leave the day behind (Suki, Karen, Inga) so they could go home feeling calm (Inga) and Suki liked the midweek session to reflect on the week and reset.

Fifteen participants mentioned the individual session lengths. Seven were initially daunted by 2-hour sessions and the slow pace of exercises (Chloe, Elizabeth, Adelina, Fantine, Petra, Katyia, Paul) but, once accustomed, they settled and attitudes changed. "Gradually I realised that these two hours are for me and I'm allowed to concentrate on just myself. So I began to kind of love this time for myself" (Fantine). James, Gordon, Marguerita, Suki, Tony, Karen and Peter felt that the session lengths were ideal and for James, Karen, Suki and Helen the time seemed to go by quickly.

Eight participants (Gordon, Helen, Peter, James, Petra, Leonie, Tony, Karen) said that the 8-week course was a good length of time and most liked the content. Gordon and Tony thought that was a good length for beginners to grasp the concepts but Chloe, who had done meditation previously, felt that she got less out of it as practices were repeated. Several participants (Marguerita, Elizabeth, Paul, Sheila, Daphne, Carolina) found the first session a shock because it included a 40-minute silent meditation. Daphne worried "I don't think I'll be able to finish this course" but soon found benefits when she applied herself. Once they had accepted the time recalibrations, they reported

that this aspect became much easier. Helen felt that the course developed good life skills and Katya and Marguerita liked the weekly variety. James and Karen mentioned that they valued the supporting book by Williams and Penman (2011).

Participants mentioned enjoying the group situation (Gordon, Helen, Fantine, Marguerita, Paul, Suki, Petra) where they felt encouraged to listen and talk about problems and experiences. It was described as therapeutic (Gordon, Helen) and comfortable (Paul, Suki, Marguerita). Group numbers fluctuated due to other commitments (Chloe, Paul, Suki) but Chloe found it helpful to practise in a group, as practice was harder on her own.

Some of the participants highlighted issues they had to overcome. Chloe, Marguerita and James felt that sitting comfortably was essential to avoid unnecessary tension during practices. James was tall and found it important to sit on two stacked chairs, so that his knees were positioned below his hips. Daphne and Tony discovered that they had peers who had a negative block about mindfulness when they spoke about it. Elizabeth had been predisposed to feel negative about mindfulness but this changed as she engaged in the class. Gordon found himself justifying internal self-criticism when others were feeling released during Exploring Difficulties practices (see Appendix W) but he persevered and became better at dealing with his own emotional perception with self-compassion.

Helen, Fantine, Paul and Leonie were all sad when the course ended. Helen described feeling “a bit scared now they're finished” and Paul wanted the weekly reminder of having a regular mindfulness class to attend. All the participants intimated that they would continue doing mindfulness exercises to

a greater or to a lesser extent. Harry said that he had continued doing it as a “top-up thing”, Tony mentioned that he had started going to the Buddhist centre and Karen was looking into becoming a mindfulness teacher. Elizabeth laughed at the question and said she had done a mindfulness exercise just before the interview!

Mindfulness practice

The participants were asked about their daily mindfulness practice, and responses ranged from the difficulty to find time, forgetting to do it, what they found easiest, hardest, and most beneficial practices, what time of day they chose to practise, what they found it useful for and some problems that they encountered. Practice is either informal (e.g. aware of brushing teeth) or formal (e.g. 40-minute Body Scan). There are also shorter 5-10-minute formal breathing and sitting exercises.

Of the eight interviewed participants in Hribar (2012), five said that they found it hard to commit to the time to practise mindfulness during the week and three had difficulty in establishing a routine. In a similar way, four participants in the current study discovered that it was easy to forget to practise during the week (Inga, Leonie, Chloe, Peter) or found some weeks easier than others (Katyia, Gordon, Karen). Karen reported that it was hard to practise when very anxious and preferred to do the Nourishing and Depleting exercise to help her (see Appendix W).

Chloe, Daphne and Fantine found it hard to practise away from the group but Daphne said that, once the tutor had persuaded her to try at least one exercise, she had started to see improvements. Some participants (Gordon, Peter, Petra, Adelina, Gordon, Helen, Marguerita, Sheila, Carolina,

Suki, Tony) mentioned that 40 minutes formal practice a day from the first week was a daunting task because they were very busy, and some hardly managed it at all (Petra, Peter, Adelina). People who overcame this in the first few weeks found it became easier to find time to practise and their mindset changed (Gordon, Carolina, Daphne, Suki, Tony, Marguerita, Helen) from “I’ve got to do it” to “I want to do it” (Gordon). Sheila wished they had started with shorter practices but Katyia felt that people should take the practice requirements (explained in the introduction sessions) into account before starting the course. Participants said that it was hard to practise late at night because they had no concentration (Peter) or focus (Chloe) and Sheila and James did a lot of mindful practice travelling on the London Underground. Some participants said that they did targeted practice before music activities, which is explored below in those sections. These findings suggest a potential barrier to mindfulness practice engagement for musicians at a conservatoire in that their time is very busy with lectures, instrumental lessons, rehearsals, concerts and hours of individual music practice. Despite being told that this practice time was necessary in the pre-intervention briefing, finding a regular time to complete the required mindfulness practice could be a potential barrier to participants taking the course.

Like participants in Hribar (2012), many participants reported that informal practices, such as the 3-Minute Breathing Space (see Appendix W), were easier than formal ones (Chloe, Petra, James, Katyia, Marguerita, Paul, Sheila, Karen). They found that these seeped into their daily lives (Elizabeth, Gordon, Helen, Peter, Adelina, Leonie, Petra, Katyia, Marguerita, Tony, Daphne) and Helen said that the informal practices were “always there for

you”. Harry felt that he had always been aware in this way and concentrated on the formal practices instead.

Some participants mentioned Mindful Eating (Fantine, James, Suki, Carolina, Paul, James) and Mindful Walking (James, Tony, Carolina, Daphne, Paul). Fantine and Carolina found Mindful Eating interesting and made them more conscious about all aspects of food. James kept forgetting until halfway through a meal but he enjoyed mindful coffee drinking and mindfully walking around London. Daphne found mindful practice very difficult to do. The first exercise she tried alone was Mindful Walking and she realised that her right foot slipped towards the right “a thing I do daily but it was really shocking for me”. This was a “realisation point” and she became a committed mindfulness student from then on.

Participants also reported problems when practising mindfulness. Leonie said that it was two weeks before she was able to be aware of her breathing without changing it. Adelina said that the formal practice MP3 tracks became boring over time whereas Carolina found the tracks made practice easier. Elizabeth, contrary to nature, reported adopting an “anti-authority” approach to the MP3 practice tracks which she felt restrictive and developed her own “mindful” creative approach. Katyia worried that she was not doing mindfulness properly but soon accepted that was normal. Inga found the Exploring Difficulties (Appendix W) practice hard but rewarding (see Section 3.5.2.5 for more details). The Exploring Difficulties practice is taught later in the mindfulness course so that mental focus and concentration skills, which will be needed for the Exploring Difficulties meditation, are developed and practised. In Exploring Difficulties, participants are requested to bring to mind

a problem from the present or the past in order to apply mindfulness techniques to its physical manifestation and explore habitual mental rumination. Bringing a problem to mind in order to meditate on it using skills you have learnt is not an easy task but it can help to disentangle physical and mental responses that may subsequently lead to relief.

Five participants in Hribar (2012) mentioned that the longer practices, such as the Body Scan (see Appendix W), were less useful to them. However, Chloe, Carolina and Inga in the current study liked them the best and Chloe said that she felt a wave of calm after 40 minutes. Three participants liked it least: Elizabeth felt in a rush, James found it hard and Leonie just didn't like to think of body parts ("blood and stuff") because it made her uncomfortable.

Adjusting to college life

James, Helen, Gordon, Elizabeth, Chloe, Katyia, and Petra talked about their adjustment to conservatoire life as first years (Helen, Gordon, Chloe, Katyia, Petra) and as Master's students (James, Elizabeth).

Problems described were getting used to critical teaching styles (James), extreme work and stress (James, Chloe), a sudden rise in expectation (Katyia) and college being overwhelming (Helen, Petra) where no-one talked about their problems (Gordon). Chloe and James used breathing exercises to help them to cope and Petra and Elizabeth found that the mindfulness course helped them to break from the expected college mould. On entering college, Katyia said that she was required to sight-read music "at gig standard" and found this very stressful. She felt that mindfulness had helped her to focus on the music and relax. "I think there is more work on that,

but there was certainly a difference,” she said. Ramler et al. (2016) studied the effects of a mindfulness course on non-self-selecting first years transitioning to university. They concluded that those who were assigned to the mandated First Year Seminars section that included the mindfulness course found it easier to adjust and showed a reduction in psychological stress. In a review of a variety of college programmes designed to help transition to higher education in the USA, Conley et al. (2013), reported that “mindfulness interventions were the most effective” (p. 296), especially those held in a group format. It would seem that a mindfulness group course could also help those transitioning from university or school to a music conservatoire.

Possible confounding factors

Participants mentioned doing a variety of other types of interventions and it was not always easy to separate these effects from the mindfulness course. Chloe started doing yoga before entering college, Elizabeth had been doing it for 6 months, and Karen did it at home with YouTube videos. Chloe, Karen and Leonie all started Alexander Technique (AT) at college either before the mindfulness course (Leonie, Karen), for posture reasons (Karen), or at the same time (Chloe). Yoga and AT are often part of performance skills training for other performing arts courses, such as dance (Moyle, 2016). Leonie had also learnt a singing technique called “accent breathing” but mixed these exercises with the mindfulness exercises developing her own singing warm up routine. Karen discovered that AT and mindfulness worked together well where AT helped her to be externally aware of what posture she needed and the Body Scan of the mindfulness course helped her to be internally

proprioceptively aware and maintain a better posture when not in AT classes. Elizabeth said that she had previously seen a performance psychologist and done hypnosis but felt that this was the reason she had been able to approach mindfulness more seriously to help her anxiety. Helen said she was doing movement class at the conservatoire, which coincided with the mindfulness course helping her to become very aware of her body, although she said, “the Body Scan has definitely made an impact”. Adelina had taken part in a NLP (Neuro-Linguistic Programming) course years earlier and had learnt similar exercises to AT and mindfulness. This was the reason, she said, that had brought her to the mindfulness course.

Participants were often not sure whether it was mindfulness or some other life event that had made an effect change. Harry felt calmer at college after mindfulness but also put that down to being more grown up. James felt that the mindfulness, in combination with some lifestyle changes, could have helped him with his anxiety where they complemented each other.

This may seem a problem for the study but the MfPAS is not run as a separate, isolated entity at GSMD but is provided as a support to participants in their lifelong learning as students and as students learning how to become professional musicians or proto-performance musicians. The possibility that mindfulness supported and aided other learning is a positive finding. It was also heartening that participants were honest in their self-assessment and were able to pinpoint areas where they felt unsure, as it suggests that they were very sure about the areas with which they felt mindfulness had directly and specifically helped them.

Stress, mindset and well-being

Eight participants noted that the mindfulness course had helped them to be generally calmer, less stressed, less anxious, on top of things, less uptight and more relaxed in their personal lives (Chloe, James, Harry, Helen, Peter, Fantine, Gordon, Paul and Petra). They felt that they had learnt useful mindful strategies (Peter, Chloe, Gordon, Helen) or new perspectives from the psychoeducation (Helen, Petra, Fantine, Chloe, James, Paul) to help deal with stressful events which facilitated them in assessing whether to be stressed or not (Petra, Paul), to let things go (Chloe, Fantine, Paul), apply positive self-talk (Helen, Fantine, Paul) and use relaxation skills (Chloe, Peter). Stress was the top factor that negatively affected music students in a study by Dews and Williams (1989) where they discovered that students turn first to friends when problems arise, but in this case, the students turned to an available mindfulness course.

Four participants found that mindfulness helped them in dealing with strong feelings in relationships. Emotions engendered by difficult personal issues (Daphne), annoyance and anger (Gordon and Paul) or jealousy (Suki) were helped by learning that experiencing negative feelings is normal and healthy and that it is *how you respond* that makes the difference. Helen developed a less self-involved mindset through doing the mindfulness course, which she described as making the biggest difference in her life. For example, she realised, if people do not say hello to her at college, that going “on that Thought Bus... (Appendix W) in hindsight, it’s quite selfish... ‘This isn’t all about you!’”

Participants said that mindfulness had improved their overall general well-being and was a life improvement (Gordon, James, Katyia, Inga, Marguerita, Helen). Katyia reportedly reassessed her lifestyle choices saying,

Well mornings are nicer because I started, I decided to ...I was just the sort of person who gets up as late as they can and just rushes out of the door so I can sleep longer, and actually this was bringing me stress for no reason. I think that mornings internally changed a lot since I did the mindfulness probably because I thought about what will be good for me and what I'm doing

Inga said that she took things easier and Marguerita found everything in her daily life changed, saying, "I look forward to every day when I go to bed". Other studies with university age students found a beneficial effect of mindfulness courses on general well-being (Byrne, Bond, & London, 2013; Klainin-Yobas et al., 2016; Van Gordon, Shonin, Sumich, Sundin, & Griffiths, 2014) and this finding was also discovered by Hribar (2012) for music students at the GSMD. It is important for establishments to develop initiatives that can help students enhance health and well-being (Ginsborg et al., 2012). In this case, the mindfulness course seemed to provide an effective place to develop enhanced well-being for stressed music students, which could help them when moving into the professional world where high levels of stress are part of the job (Vaag et al., 2016).

3.5.2 Effects of mindfulness on instrumental learning

3.5.2.1 Instrumental lessons

The participants noted that learning mindfulness had the effect in their instrumental lessons of making them more focused, body aware, changed their mindset to lessons, and encouraged them to become less self-critical.

Focus

Participants reported feeling more aware or focused in lessons (Chloe, Harry, James). Lessons were described as more mindful (Elizabeth, Harry, Marguerita, Gordon) and they found that they concentrated with less mind wandering, worry, stress, and distractions to get in the way (Gordon, Chloe, James, Carolina, Daphne, Suki, Leonie). In the MfM, item 3 (Appendix B) addressed this area, “In instrumental or singing lessons, I always pay attention and never daydream or get distracted”, and seven participants (Helen, Harry, Gordon, Elizabeth, Adelina, Suki, Paul) had improvements over the intervention period of +2 or more (see Chapter 2, 2.4.2).

Daphne found that increased concentration helped her in a particularly difficult piece with constant semiquavers. Her teacher noted her enhanced concentration levels and praised her for this improvement. James felt that his lessons were more efficient and Leonie reported, “I was like, ‘Actually, even my singing lesson has been really, really good lately.’ Not in terms of I was good, but just how —, the process of it.”

Six participants mentioned no effect on mental focus, as Helen, Inga, Paul, and Fantine felt that they had always been focused or responsive in lessons, although Paul’s response to MfM item 3 increased by +2 over the

intervention. Sheila and Petra found no change, although Petra said that she had not been expecting one.

I guess in my lesson [things] haven't changed because they were never like a problem before whereas things that were a problem like performing, the audiences and stuff is where it's affected me most (Petra).

Body awareness

Participants noticed an improvement in body awareness in lessons (Helen, Harry, Marguerita, Sheila, Suki, Daphne, Karen). They reported becoming more aware of muscular sensation changes (Sheila, Marguerita, Karen, Suki, Helen), which, they said, helped when learning technique (see Section 3.5.2.3), released unneeded tension (Karen and Daphne) and improved the sound (Karen).

Changing mindset and self-criticism

Six participants (Adelina, Leonie, Katyia, Marguerita, Paul and Carolina) reported that their mental state for lessons changed over the course of the mindfulness intervention and they became more kind to themselves with less internal criticism. Eight participants (Helen, Gordon, Elizabeth, Fantine, Paul, Marguerita, Katyia, Carolina) decreased their scores by 2 or more in the negatively-worded MfM item 9 (Appendix B) "I'm always criticising myself in singing or instrumental lessons". In interview, Leonie said that she was more ready to work and had less pre-lesson judgment, and Katyia described being more relaxed in lessons. Adelina and Katyia, who described themselves as self-critical perfectionists, said that they had learnt self-compassion on making errors in lessons when feeling underprepared either due to being given more work than could be handled (Adelina) or through realising that becoming a musician is a work in progress (Katyia). As Adelina said,

My teacher wants me to study two new Caprices every week which are really difficult to be prepared after one week with two studies like that and at the beginning I was, of course, not prepared the best because it's impossible... then after some [mindful] practices and some sessions...I could go to lesson being aware that I wasn't prepared at the top but showing, doing the best I could and it was better...I could say "Okay, I'm like that, I prepared until this point then I go" and it's the same type of sentences that you say in mindfulness.

Both participants felt that their relationship with their teacher improved as a result.

Gordon, Marguerita and Peter found that the mindfulness exercises highlighted the different mental states that they felt in practices, lessons and performances. Gordon and Marguerita decided to try to be in a mindful state wherever they were. However, Peter used the different phases of mind to help him enhance different parts of his learning process by being mentally tense in practice and lessons to explore how it feels but being loose and free in performance.

3.5.2.2 The teacher

There were a variety of mindfulness effects reported by the participants on understanding the teacher's advice, taking criticism and enhancing communication.

Hearing and understanding

Peter, James, Suki, and Leonie found that the mindfulness course had helped them to concentrate, accept, or be ready to "hear" the teacher better and listen less judgmentally to the reality of what was being said. For example, Suki said,

Before I started learning with a new teacher and I was worrying about how he hears me play - so I was worrying that I have to be really nice and I need to be really good so that I can make nice sounding but so I couldn't really concentrating on like what he's saying...I felt because I'm thinking more about what he says in the moment so I could think more, I could ask question instant after he says rather than just accepting it. So that's the things that kind of changed in the lessons.

Karen realised that she focused too much on what the teacher was saying and now focused more on sensations that she experienced in lessons, such as extraneous tension and sensory effects of new technique, which improved her sound and was noticed by her teacher. Peter said that he had to deal with a lot of information from his teachers, which he tried to process all at once thus missing the subsequent information. He reported using mindfulness to help him focus, listen mindfully, and chose to internalise what was said later. He mentioned that his lessons were now more effective.

Harry, Gordon, Karen and Marguerita found that doing mindfulness helped them to understand better something the teacher had told or showed them. Marguerita reported, "I feel I'm able to observe better what he does and to apply it". As an improvising jazz saxophonist, Gordon had been advised by his teacher that he had "good lines" but that he needed to develop "the sound of surprise", something he had originally taken quite literally. However, he said that learning mindfulness meant that he improvised more creatively in the moment and less "mathematically" or "cerebrally". He realised that this was what his teacher had been advising him to do and he reported that the teacher was very pleased with his progress. Harry's teacher had suggested that he did "mental instrumental practice", a skill that Connelly and Williamon (2004) described as highly useful for developing musicians. Harry, an advanced student, had originally found that this type of practice was too hard due to

feeling distracted, but discovered that focused mindfulness exercises helped him to develop this skill.

Improved communication was a benefit noted by Helen, Katyia and Elizabeth. Elizabeth said that she had previously been very anxious in lessons but now felt more collaborative and communicative with her singing teacher leading to less frustration in the room from him now she was more open. Helen, who improved by +2 on MfM item 13 (Appendix B) which states “I can easily describe to others the physical sensation I feel when I sing or play my instrument”, also reported that her increased body awareness in lessons helped her to communicate aspects of her technique more easily to her teacher. Harry, however, felt that his teacher had not probably even noticed him being more mindful in lessons because “she normally picks up on these details”.

Teacher criticism

Fantine spoke of the importance of the teacher at conservatoire level, something explored in far more detail by Gaunt (2008, 2010, 2011) (see Chapter 2, Section 2.2.2). Gaunt discovered how implicit dynamics of power within teacher/pupil pairings could make it difficult for students to verbalise their thoughts within lessons or change teacher if unhappy and several participants concurred with this and their reports suggested that little has changed in conservatoires. Fantine said, “The teacher is such an important person in your life, when they’re not happy, it’s a big deal.” She felt that taking three breaths had helped her relationship with her teacher when it was strained “so I don’t burst into tears.”

It is not uncommon for some music students to be more negatively affected by teacher criticism than others. In Atlas, Taggart, and Goodell (2004), music students who scored high on the Atlas Sensitivity to Criticism and who were more affected by teacher criticism improved less, found it difficult to communicate with the teacher, and their enjoyment and confidence was also reduced. They suggested that educators be aware that highly sensitive students may need carefully thought out criticism. However, the current study suggests that students can also take ownership of this issue and learn skills to help them deal with taking criticism, which is an expected part of music education. For example, participants in the current study said that they found it easier to deal with criticism from their teachers as a result of doing the mindfulness course (James, Fantine, Adelina, Chloe, Suki, Carolina, Daphne, Elizabeth) where Elizabeth discovered that it was less personal now and felt more detached. Helen, Adelina, Suki, Carolina, and Daphne, for example, all described depending heavily on their self-perception of their teacher's approval or esteem. Both Helen and Adelina noted that they had found one exercise from the mindfulness course to be particularly helpful. Participants were asked to imagine a social situation where their teacher ignored them, and investigate their own reactions. They immediately wondered what they had done to make the teacher act this way, but in reality, they discovered that it could have been nothing to do with them at all and it was impossible to know for sure without asking. Suki, Carolina, and Daphne had realised that they had worried too much about what they believed the teacher thought of them and now described themselves as less accepting of the assumed power dynamic and more confident to give opinions. Carolina described feeling confident to

play Prokofiev despite her teacher not liking that style of music and Daphne said,

Before the mindfulness course at the beginning of the year I always had a tendency to agree with all the things that my teacher would say. Now I can argue! It is just like it is in ensemble playing where I can comment on music, I can say "actually I rather prefer this, actually this doesn't work" that confidence has come up a bit more than in the beginning of the year it was more "oh that's the teacher, if she says that, don't mess with it" but now it's just more "what would suit best for me?" so that's me coming to me, that I've realised.

Motivation to practise

Participants reported that, having learnt mindfulness, they were able to transfer the benefits from music lessons into practice. Item 10 on the MfM (Appendix B) states, "My private practice sessions are always affected by how well or badly my instrumental/singing lesson went" and seven participants' scores decreased by 2 (i.e. practice was less affected by music lesson perception) over the course of the intervention (Helen, Chloe, Elizabeth, Petra, Adelina, Paul, Katyia). Mackworth-Young (1990), studying pupil-centred learning and teaching styles in piano lessons with four young children, discovered better student/teacher relationships and a more positive lesson experience for three pupils improved motivation and increased practice time. In a similar way, the participants in the current study, who also reportedly improved this aspect through learning mindfulness, possibly extend this finding to students in conservatoires. For example, Helen, Katyia, and Elizabeth suggested that, in their case, mindfully improved pupil-teacher communication, as well as mindfulness in general, may have also helped increase their motivation to practice. Karen did not demonstrate a change in the MfM for this area but she said that she felt less motivation to practise if the

lesson didn't go well. However, thanks to the mindfulness course helping her to have more self-compassion, she thought "don't beat yourself up about it" and guessed that her teacher had probably experienced similar days.

3.5.2.3 Body awareness and instrumental technique

Twenty of the twenty-one participants interviewed reported that they had enhanced body awareness in general as a result of doing the mindfulness course. Eight participants (Elizabeth, Gordon, Harry, Helen, Paul, Daphne, Sheila, Karen) particularly noted the Body Scan technique as helping them to be more aware of their bodies in lessons, music practices, and on stage when learning and maintaining technique. The impact was that they described feeling more aware of the sensory changes engendered by technical instruction during instrumental lessons and that this helped in transferring learning to practice and eventually onto stage. Participants reported being more mindful of the whole body, specific areas of the body, and were able to personally diagnose posture and tension issues. Mindfulness also helped them to learn instrumental technique through mindful breathing exercises, psycho-education, focused mental awareness and improved observations skills.

Body aware

Leonie said about learning technique, "Sometimes I'm not sure if I'm doing the right thing". Participants (Gordon, Adelina, Marguerita, Fantine, Leonie, Helen) found that being mindful when learning technique helped them to know "the feeling when you get it right" (Fantine) or "wrong" (Gordon). Adelina said that it helped her to get the correct position from the first moment

and Marguerita reported she could react faster because “I’m *there* somehow.” Marguerita, Suki and Gordon felt that it helped them to “really transfer it [technique] to other things” (Gordon) such as performance.

Five participants (Paul, Sheila, Suki, Elizabeth, Daphne) used mindful body awareness to bring themselves out of autopilot playing. For example, Sheila, said,

I would try a break during the session and just think, ‘Am I doing? or am I being?’ and that was probably more technically based because I would often find, you know, you get into such a habit of doing all the technical scales and whatever, that you don't necessarily get out of them what you could because you're just doing it by rote. So every now and again I'd stop in a practice and kind of, take a step back and think, ‘am I doing or being’ and then try and proceed from there and actually be mindful about how I was, 'how' I was practicing the next scale or whatever, and what did I want to achieve.

This body awareness when learning skills is as important in music as sports training (Connolly & Williamon, 2004) and had been clearly enhanced by the mindfulness exercises for these participants.

Some participants felt that they already had secure technique (Inga, Harry, Katyia, Sheila, Carolina) and reported using enhanced body awareness to maintain this to a high standard. Inga and Harry had previously had piano training that included mindful-type exercises, such as playing one note over and over in an intensely thoughtful way. Inga’s teacher had said to “obtain this technical brilliancy, you just do very slowly and mindfully.” Katyia described using mindfulness to keep her technique steady and Carolina used her physical and technical awareness to create a musical phrase and “express it more than before.”

Parts of the body

Three participants discovered that they were now more aware of the body as a whole when playing (Elizabeth, Harry, Fantine) where Elizabeth felt that she had learnt how “everything in the body is interconnected and that singing is actually a delicate balance” and Fantine felt she was conscious of “breathing with my whole body.”

Other participants reported being more aware of specific parts of their body. Wind players described becoming increasingly cognizant of their embouchure (Gordon, Sheila, Karen) when it’s “more out on one side” (Gordon, saxophone) or learning how to relax so that fatigue does not set in (Karen, clarinet). Gordon was also conscious of his fingers being difficult to uncurl after many hours of playing and said that he was glad to have more mindful body awareness as a way to attend to this problem from a musician’s health mindset. Pianists reported being more mindful of fingers, sides, back and chest (Harry), hands (James) and wrists (Petra) in order to avoid strain and maintain healthy seated body movement.

Helen, as a vocalist, described becoming “hyper aware of parts of my body”. Areas noted by singers were shoulders (Helen), tongues (Helen, Karen, Fantine), breathing mechanisms (Leonie, Karen), back of mouth, soft palate, and cheekbones (Karen). Fantine said,

I guess being able to feel the sensations in your body, because we’re allowed to be aware of them, I don’t know why we just forget. You just do things without feeling or understanding why. So by doing the mindfulness course-, I don’t know, it’s like a new door has opened.

Chloe was the only singer who mentioned no effect from enhanced body awareness.

String players like Paul (double bass) also said that he sensed more into his hands, Suki (violin) was aware of her arm, and Daphne (violin) and Peter (jazz bass) were conscious of tense shoulders. Daphne felt being mindful and addressing this problem had a big effect on her playing. Enhanced body awareness during hours of instrumental practice could be efficacious for maintaining musicians' health, as suggested by Ginsborg et al. (2012). The current research extends this suggestion with the proposal that mindfulness could be a possible method by which this enhanced body awareness could be achieved.

Diagnosing problems.

Participants, becoming more mentally and physically aware from doing the mindfulness course, discovered that they could more easily diagnose and rectify posture and tension issues. This was hypothesised in Elliott (2010) who suggested mindfulness could help singers be cognizant of bad habits and learn to retrain them. Peter, James, Tony and Karen all reported posture improvements as a result of learning mindfulness, "I've always had quite a bad posture...it really helped with that, actually," reported Peter. Tony spent most of the day in a chair composing and he said that his posture had improved by "listening to what the body is saying."

High levels of playing-related muscle tension were found to be one of two significant predictors for outcome indices of pain and symptom severity and frequency over time of 240 professional musicians from Sydney in a study by Davies and Mangion (2002). Being able to be aware of unnecessary playing-related tension as a student whilst learning technique could help them develop healthy playing behaviours and reduce pain and pain-related

symptoms over a performing lifetime. As Harry had discovered, “literally any tension in the body can affect the way that you play”. Eleven participants (Chloe, Petra, Helen, Sheila, Harry, Fantine, Peter, Karen, Gordon, Paul, Daphne) specifically noted the effect that learning mindfulness had on their playing or singing related tension. Helen mentioned that she became tense when she was anxious and Fantine discovered it could happen when over-compensating whilst learning technique.

Sheila reported rectifying “sore shoulders”; Petra became aware of “tense wrists” and learnt to relax a bit more. Helen diagnosed areas of tension in her shoulders and she and Fantine both said that they used mindful body awareness to help deal with bad habits such as tongue-root tension. Fantine reported she was aware now when “before I didn’t know when it was happening.” Peter said,

I think physically, I think I never realised how ridiculously tense my body was, especially shoulders and posture as well. I've always had quite a bad posture, I think specially doing quite a lot of this sitting, it really helped with that, actually, just noticing how all these things between thoughts and the body are connected has been quite a breakthrough for me because it's very, very difficult to play the double bass with tense shoulders and finding out that I was doing that quite a lot of the time and trying to relax or like warm up and stuff before doing anything definitely made a positive improvement.

These issues were also found in a study with Malaysian music students where performers who reported tension, pain, and discomfort from playing music identified the main problems to be found in the areas of the fingers, hands, neck, arms, and shoulders (Lonsdale & Boon, 2016). The researchers’ advice was that music students should develop management strategies so that healthy playing-related behaviours could be developed for the future. The

current study extends this research by suggesting that learning mindfulness would seem to be a good contender for an appropriate management strategy.

Tone and sound

Reducing tension also seemed to have an effect on sound and tone quality. Sheila (french horn) used the Body Scan to help her be aware of maintaining good support and breathing, and reported that,

The sound changes hugely. It's just much more open, the phrasing is better because it's much more evened out, more open sound that doesn't sound as pinched and just lends itself better to being more musical.

Daphne described finding a lot of tension in her shoulders when doing the Body Scan in mindfulness classes and subsequently in instrumental lessons. She spoke in detail of the positive effect of relaxing them on her violin playing and sound, and the effect of tension on sound production she heard in others where "it just ruins the performance from the start". Peter felt that he could also tell the difference between the sound a musician made when overly tense, describing the sound as "aggressive" and "stifled" rather than a "large easy sound". He felt that this was very important in jazz. Gordon, another jazz musician, found that the Body Scan helped him to be aware of what "tension feels like" and he said that he now blows his saxophone more freely. This tonal change, engendered by a mindful approach to instrumental playing, was also observed in a similar way in Langer et al. (2009), where most listeners preferred the orchestra's mindful performance.

Karen is a case study for the effects of the mindfulness course, yoga and Alexander Technique (AT) on playing related tension. Initially she said she had developed pain through bad posture. She also described having

tense elbows, fingers, legs, and a tense embouchure, which would regularly collapse from fatigue. Working on her posture with AT allowed her to understand that her back needed to support her arms holding the clarinet. She felt that the Body Scan encouraged her to assess each of these body parts, both internally and externally, which helped her to free up her fingers and allowed her to trill faster. The Body Scan also alerted her to tension in her legs and pelvis, which tensed the abdomen and then the chest. Originally, her restricted breathing, airflow, and tense embouchure meant that the sound became “trapped” and she would go through boxes of reeds. Using the Body Scan and breathing exercises, she said that she had learnt to release this unwanted tension, even during performances. Enhanced mindful attention meant she felt able to concentrate better on staying relaxed when playing and she used the psycho-education (Thought Buses (Appendix W)) to deal with any unhelpful self-criticism. Now, she reported that her posture is better, she described her arms, legs and fingers as being unlocked and her air supply as more efficient. She said that she sensed far more resonant space inside her chest, and that she now had no embouchure fatigue which consequently meant that her sound had more overtones and was richer in quality. She felt that her confidence had built and she said that even an examiner had noticed her improvement over the year. Her teacher told the examiner that this was all down to Karen learning relaxation and how to deal with tension in her body. Mindfulness and AT, Karen reported, have “enhanced my playing massively” and she said that she even gets through far fewer reeds now.

3.5.2.4 Instrumental practice

Participants talked about how the mindfulness course had affected their music instrument practice. They noted benefits from being more focused and efficient, increased body awareness, a better ability to deal with problems during music practice time, changes in practice length, a connection between mindful and musical concepts, and more creativity in practice sessions.

Mindfulness practice before instrumental practice.

Although this was not something that was instigated or recommended by the mindfulness trainer, 10 of the participants reported doing mindfulness practice before some, or all, instrumental practices (see Table 3.5).

The targeted mindfulness practice mentioned most often was the 3-Minute Breathing Space (Helen, Adelina, James, Sheila) and those who did do mindfulness practice discovered that their focus and efficiency were improved in their instrumental practice. Sheila felt that it put her mind “in the right place to begin with” and Katyia found that instrument practices that started this way were “really different.”

Table 3.5 *MfPAS participants who did mindfulness practice before instrumental practice*

Participant	Instrument
Chloe	Voice
Helen	Voice
Fantine	Voice
Leonie	Voice
James	Piano/Guitar/Percussion
Katyia	Flute/Saxophone
Sheila	French horn
Marguerita	Viola/Piano
Carolina	Violin
Adelina	Violin

Focus and efficiency in instrumental practice

The most popular reported mindfulness effect on instrumental practice was better focus (Chloe, Helen, Adelina, Petra, James, Sheila, Suki, Daphne, Karen) and concentration (Adelina, James, Suki, Carolina, Daphne). Other synonyms used by the participants were being more aware (Chloe), in the zone (Helen, Adelina, James, Katyia), the right frame of mind (Helen), conscious (Fantine, Marguerita), and detailed/precise (Marguerita). They described less boredom (Peter, Karen, Fantine), inefficiency (Katyia), autopilot practice (Paul, Karen), “just playing through” (Marguerita, Sheila), and mind wandering (Gordon, Helen, Fantine, Paul). James, in fact, described a “marked difference” in his instrumental practice. He kept reminding himself of something the mindfulness trainer had suggested to him when he got distracted: “escort your mind back to the task in hand”. James said,

I've never really been taught how to practise before starting at this college so I'm working to establish a routine and in order to remain focused and not be distracted, that's where the mindfulness has come into help with that.

This is an experience that is not unknown. In a similar way, for example, Jørgensen (2000) reported that students in his study on instrumental music practice had mentioned that training on how to practise had been neglected. From the opposite perspective, in a questionnaire study with 94 music teachers, teachers seemed to think that they taught practice techniques but, on closer inspection, were found to talk more about the importance of practice rather than the practicalities (Barry & McArthur, 1994).

Helen, Inga, Adelina, Carolina and Daphne's scores for item 14 on the MfM, "I'm easily distracted when practising my voice or instrument", decreased by 2 (i.e. they were less distracted) over the MfPAS course. Distractions described by the participants could be through mental thoughts (Inga), emails and phones (Suki, Daphne, Carolina, Karen), sounds from outside (Daphne), wanting to play another piece (Fantine, James) and course pressures (James, Karen). Interestingly, James' score changed negatively by 2 (indicating he was more distracted) on the above item, so his perception of this issue in interview suggested something different to his perception when filling out the questionnaire.

Similarly to three participants in Hribar (2012), another frequently reported effect in the current study was an increase in efficient practice (Gordon, Harry, Helen, Adelina, James, Marguerita, Paul, Suki, Daphne, Karen, Katyia, Sheila, Carolina). This is important because practice rooms and time are a finite resource and, as Gordon observed, it is a "massive thing to

get as much out of your practice as you can". Participants noted learning faster (Harry, Adelina, Carolina, Daphne) where Harry felt that mindfully reading the score helped him to learn a large volume of piano accompaniments "a lot quicker". Chaffin and Lemieux (2004) linked the quality of practice to achievement saying, "High levels of accomplishment also requires that practice time be well spent" (p.20). Similarly, Ericsson, Krampe, and Tesch-Romer (1993) emphasised the importance of focused and motivated deliberate practice, rather than "natural talent", as essential in the achievement of expert music performance. Participants discovered that mindfulness had improved their practice efficiency, which meant they felt that they achieved more (Marguerita), practice was more productive (Helen, James) and more fruitful (Paul). The current research extends the research of Chaffin and Lemieux (2004) and Ericsson, Krampe, and Tesch-Romer (1993) by suggesting that learning mindfulness could help students to maximise their practice time by being more efficient and effective.

Body and aural awareness

Participants reported that being more mindful made them more aware of their bodies and health in practice. This was a similar finding to that reported in instrumental lessons (see Section 3.5.2.3). Inga said that knowing how you press and release a piano key was crucial in learning Mozart and suggested, "you practise it mindfully and it helps". Gordon found himself mindfully pre-hearing and feeling each note as he played his saxophone rather than running on "finger memory" which, he said, improved his improvisation skills. Elizabeth and Adelina mentioned that mindfulness helped them to disassociate from the instrument to hear or perceive better from the

outside. Adelina discovered that this was “really important” for her current development and Elizabeth felt that she was dealing “with the detail without losing sight of the whole”.

Problems during practice

Thirteen participants found that mindfulness helped them when their practice was going wrong: some participants were physically tense or had technical issues (see Section 3.5.2.3), some became mentally tense or stressed (Helen, Katyia, Karen), and sometimes these issues were related where, for example, Helen said,

What I do have a habit of doing is if I'm worrying about something then if I then try and go and practise and I'm on this thought bus of worry, getting off it is very difficult and it completely, like, soon as I'm stressed or tense in any way it manifests itself in my voice and in my body and I just tense up and it just means that it just completely affects my singing.

Participants used mindfulness to separate mood from practice (Helen, Peter, Katyia, Sheila, Daphne, Karen, Marguerita) and Peter reported that he could practise now when not in the mood, Sheila used it to help her deal with homesickness, and Helen said,

I think just being able to use that breathing space to kind of come back to the breath and focus on me before going into practice means that I can leave any worries or anything I've been stressing about outside the practice room when I go and really focus. And that's made a massive difference for me actually.

Participants noted becoming aware when things were not going well in practice (Chloe, Leonie, Fantine, Helen, Elizabeth, Sheila, Marguerita, Katyia, Daphne, Karen, Suki) where originally they would have given up or maybe forced themselves on. Inga said that she sometimes felt scared to make decisions in practice, and difficult passages or negative thoughts were

described by others as demoralising (Suki, Marguerita, Sheila, Karen) and leading to procrastination (Inga, Karen, Suki, Marguerita). Steinfeld and Brewer (2015) suggested that learning mindfulness skills could help with psychological problems such as practice avoidance, only practising that which is already mastered, or an unwillingness for self-scrutiny encountered during music practice, and participants clarified this, adding empirical weight to the suggestions of Steinfeld and Brewer (2015). Instead of giving up when practice became difficult, some of them described taking a break and trying some mindfulness exercises (Fantine, Helen, Elizabeth, Katya, Sheila, Karen, Suki) such as breathing practices (Helen, Sheila, Karen), Thought Buses (Helen, Karen), Exploring Difficulties practice (Inga) or another task such as composing (Katya). They found that doing something mindful helped them to realise that thoughts are just thoughts, put thoughts into perspective, learn to be with the problem, and become more positive and carry on in a better mindset (Leonie, Fantine, Helen, Elizabeth, Sheila, Katya, Daphne, Karen, Suki). Participants noted giving themselves more self-care (Katya, Sheila, Fantine, Marguerita) where Marguerita stopped criticising herself when something went wrong. Fantine would try to practise again after a break and, if things were still not working, just stop and not criticise herself.

Some participants said that they were less likely to worry about people hearing them practise as a result of the mindfulness course. The MfM item 4 (Appendix B) stated, "If people can hear me practising, I know it's irrational to worry and I criticise myself for worrying". Oddly, in this negatively-worded item, two participants (Suki, Carolina) increased their scores (indicating that they worried more) but eight others decreased by 2 or more over the course of

the intervention (Helen, Chloe, Elizabeth, James, Paul, Marguerita, Sheila, Katya). However, no-one verbalised this effect in interview.

Practice length

Some of the participants mentioned that their actual and perceived length of time practising changed over the course of the mindfulness intervention, although Peter and Adelina noticed no difference. Chloe, Elizabeth, James, Suki and Helen described practising for longer and said that this was due to being in a better frame of mind (Helen) and feeling more focused (James). Practice was perceived by Katya and Sheila as longer but Katya realised that it was not longer in reality and Sheila found her practice time was actually shorter. This slower time perception mirrors the findings from the mindfulness participants in Kramer, Weger, and Sharma (2013) where 40 undergraduates did a temporal bisection task after either a 10-minute mindfulness breathing exercise or listening to a 15-minute reading from *The Hobbit* by J.R.R Tolkien.

However, Marguerita, Leonie, Daphne, Sheila and Paul reported practising for a shorter time which they said was due to less distraction and increased efficiency. Paul reduced 2 hours mindless practice into 30 minutes focused practice and Daphne reduced from 6 hours to 3 hours a day.

The mindful/musical connection and instrumental practice structure.

Participants described developing a close connection between their mindfulness practice and their instrumental practice (Elizabeth, Gordon, Peter, James, Marguerita), a connection hypothesised on in detail by Steinfeld and Brewer (2015) who suggested that mindfulness practice could serve as a useful model for music practice. Participants reported approaching practice in

“being mode” so that “I don’t have to go into practice mode because there is no other mode other than being mindful” (Elizabeth) and James felt that his formal mindful practices and his instrumental practices went “hand-in-hand”.

Some participants described changing the structure of their instrumental practice in response to the mindfulness course. Inga stopped setting goals and started to enjoy the journey whereas Sheila found that she worked best when she used mindfulness skills to focus on the goal of an exercise. Some participants mentioned breaking up their practice into smaller sections (Leonie, Katyia, Marguerita, Karen). Katyia knew from doing mindfulness exercises that she could concentrate for 20 minutes and said that she now approached practicing a piece in the same way, just focusing for 20 minutes at a time. Marguerita used to do 2 hours practice a day. She found that she could concentrate for 40 minutes so she did 40-minute sections of instrumental practices and then took relaxation time. She used bells (like they did in her mindfulness classes) to change her practice focus every 10 minutes, switching to different pieces or re-practising technique or passages that she had practised earlier.

Creativity in practice

To improve instrumental practice, Jørgensen (2004) advised students to “try to introduce new elements into your practice” (p.88). The findings from the current research extends the instruction from Jørgensen (2004) to suggest that mindfulness might be a route to encouraging students to introduce new elements into practice. For example, Elizabeth, Peter and Fantine found that the mindfulness exercises encouraged them to be more creative in their music practice. Elizabeth said that she enjoyed finding her singing practice more

exploratory rather than a means to an end. Fantine described her practice as more creative and less boring saying,

So in practice, every day is different. Your voice can be different every single day. So it shouldn't ever be boring, you shouldn't ever see it like that...definitely more creative, because if I'm seeing it with new eyes, I try to, every time, then, I don't know, you can bring something new. You'll realise things you didn't see before. Even markings or dynamics. When you're going through it, sometimes you just don't see them and they're so obvious, they're on the page, but, I don't know, things as small as that.

Enjoyment

Four participants felt that the mindfulness training had helped them to enjoy practice more (Katyia, Marguerita, Chloe, Helen) due to a practice structure change (Katyia), being more conscious, aware and focused (Marguerita, Chloe) or being in the right frame of mind (Helen), which increased efficiency (Marguerita) and productivity (Marguerita, Helen) and made them more satisfied with instrumental practice as a whole. Helen reported that her teacher had also noticed her practice improvement.

Interconnection

Although the above information is sectionalised, participants indicated that there was an interaction between the different elements that improved practice with the mindfulness course as a trigger point. James said that being more effective in practice through mindfulness meant that his performance had improved because "everything's connected" and Elizabeth found that the mindfulness encouraged her to think how interconnected everything is where vocal problems were sometimes indicative of a non-vocal problem.

Music psychology research into instrumental practice by researchers such as Hallam, Lehmann, Ericsson, Jørgensen, and Nielsen is extensive. It

suggests that efficient and quality practice, wherein students develop extensive metacognitive skills such as acute self-awareness, concentration, planning, monitoring, and evaluating skills, develops an excellent musician. However, there is little in the research that addresses the effect of daily changeable psychological factors on practice mindset or practical coping advice in order to allow these superior cognitive skills to develop. Participants in the current study seemed to have extended this research by reportedly improving their metacognitive skills through training in mindfulness and developed more efficient and productive practice as a result. Furthermore, when a participant's physical technique or mental state were wrong, participants reported that the focused awareness practices and the mindful psychoeducation encouraged them to be kinder to themselves, gave them practical skills to keep going through difficult practice times, and helped them to maintain motivation. This, it seemed, enhanced their learning experience, creating an atmosphere that encouraged musical creativity and enjoyment leading to improved performance and practice skills.

3.5.2.5 Group practice in ensembles and rehearsals

Participants found that learning to be mindful had an effect when working with others in ensembles and groups. Participants felt that being more mindful helped them to be more focused, aware or "zoned in more" when working with others (Chloe, James, Katyia, Fantine, Elizabeth) and improved rehearsal efficiency (Harry, Fantine). Elizabeth, for example, described listening more, being more aware, and taking a less "panic stricken, frankly egocentric" approach in rehearsals with choral scholars.

Werner and Alterio (1996) suggested that developing listening skills is an important step in becoming a good musician, as it deepens knowledge and enhances creativity. Mindfulness training of only 15 minutes duration had been seen to improve music listening skills of 132 university music students in ensemble classes randomised to a mindfulness condition (n=69) and a control (n=63) (Diaz, 2013) (see Chapter 1, Section 1.2.2). In a similar way, participants (James, Gordon, Peter, Adelina, Elizabeth, Katyia, Paul, Suki) in the current study also reported listening better, both musically and personally, which improved interaction, connection, communication and creativity.

Listening to the music mindfully was said by some participants to help them to be more creative in ensembles (Gordon, Peter, Adelina, Fantine, Suki). Gordon felt that he played more freely and his improvisation within groups was improved after doing the mindfulness course. Adelina described using more expression now in rehearsals and Fantine found that she and her ensemble were more creative, saying “you just bounce off each other”. Suki reported, “I listen more how we played,” and was now more musically opinionated, realising sooner what she wanted to say.

Working with other musicians can also be difficult with many personalities and musical tastes interacting. Participants said that their mindful work on thoughts and emotions helped them worry less about making mistakes or others’ opinions (Katyia, Paul, Marguerita, Daphne, Adelina) and participants described feeling more confident about their own ability, and about voicing their musical opinions (Fantine, Sheila, Paul, Suki, Adelina, James, Daphne). In the negatively-worded item 7 of the MfM (Appendix B), “It’s hard for me to find the words to describe to others what I think or feel in

rehearsal or practice sessions”, Daphne’s score decreased by 3 and this translated to her interview where she said,

It is in ensemble playing where I can comment on music, I can say “actually I rather prefer this, actually this doesn’t work”. That confidence has come up a bit more.

James discovered that learning mindfulness helped him to cope with confrontational situations in rehearsals and Marguerita felt less upset if others did not agree with her.

For Inga, learning how to interact with other musicians was an important part of her journey in finding her own voice and she reported using mindfulness to help her. She had realised that “I’m so bad at interacting with people” and chose to challenge herself by exploring GSMD courses in accompaniment and conducting. In becoming vulnerable and learning mindful acceptance after being so used to being in control of one person (herself) on stage, she described learning to be responsible for an orchestra or support nervous singers. This, she said, put her in a new position especially when working with non-virtuosic repertoire, such as Schubert songs, which requires great understanding and depth. She had realised that her problems, resulting in procrastination, were due to being scared. It was through the mindful Exploring Difficulties work that she said she had discovered “a turning point” and found support in working on that area.

3.5.3 Effects of mindfulness in performance

3.5.3.1 Music performance anxiety

The mindfulness course was reported to have a variety of positive effects on the participants as performers. Similarly to Hribar (2012), one of the main areas they talked about was music performance anxiety (MPA). MPA is an anxiety disorder particular to musical performers and has both mental and physical symptoms, which, if significant enough, can impair performance (Kenny, 2011).

Nine participants reported their experiences of MPA prior to commencing the mindfulness course. They tended to experience high levels of music performance anxiety either pre-performance or on stage (Elizabeth, Helen, Fantine, Leonie, Petra, Marguerita, Sheila, Carolina, Karen). Gordon spoke little about performance anxiety during his interview. However his post-intervention MfM score on three questions that covered this topic suggested that he had reduced performance anxiety over the intervention, as his MfM showed mindfulness-level improvements of +9 above the pre-intervention MfM score. Eight others mentioned having nerves or anxiety but not all the time (Chloe, Harry, Adelina, James, Katyia, Paul, Suki, Gordon) and four participants reported having hardly any performance nerves at all (Inga, Peter, Tony, Daphne). Harry, Peter, and Adelina described feeling more “pumped” than anxious.

Some participants reported having a lot of catastrophising thoughts (Elizabeth, Helen, Petra) and described feeling “terrified” (Helen) or “panic” (Elizabeth). Kenny (2011) described catastrophising and attention binding (a preoccupation or involuntary focus on threat and danger) as the two most

regular and worst “cognitive distortions” in MPA (p.123). Helen, Fantine and Petra all intimated that their MPA had increased because of being “overwhelmed” simply by enrolling at the GSMD. Participants described themselves as stressed and anxious (Helen, Leonie, Marguerita) and having bad thoughts (Petra, Carolina, Karen, Gordon). They worried about making mistakes (Paul) or that they would not do their best (Leonie), were self-judgmental (Karen) and responded by being jokey (Paul). Carolina and Fantine felt that their minds wandered, or were confused and unclear, leading Carolina to feel “afraid to be afraid”. The worst thing she found with MPA was that “I can’t *feel* the music”.

Participants also mentioned having physical symptoms of MPA such as shaking (Fantine, Suki, Carolina), sickness (Petra, Suki), faster breathing (Marguerita, Paul, Carolina) or forgetting to breathe (Sheila). Marguerita’s and Sheila’s hands sweated, and Carolina’s were cold. Sheila had a racing heart and dry mouth whereas Marguerita felt her throat and chest were blocked. Karen and Marguerita had excessive tension, Fantine had tingling sensations and Helen did not feel good vocally.

Participants worried about what the audience might think (Fantine, Adelina, Elizabeth, Petra, Leonie, Helen, Peter, Marguerita, Paul, Sheila, Suki, Carolina, Daphne, Karen). They were concerned that audiences noticed mistakes (Helen, Peter, Paul) or sat in judgment (Fantine, Elizabeth). Only James spoke positively about how important the audience’s “vibe” is to the success of a performance. Increased mindfulness for him meant that he felt more outwardly aware, less introspective, and better able to listen to his band members and the mood of the audience.

Participants reported using a variety of non-mindfulness strategies to help them with performance nerves such as imagery (Fantine, Carolina), relaxation (Adelina), measured preparation (Harry), over practising (Leonie), and Petra just hoped her preparation had been enough.

Mindfulness strategies for performance anxiety

Jahn (2013) suggested that “for performance anxiety, nothing brings greater relief and clarity of mind than a breathing practice followed by concentration or meditation” (p.332) and participants’ reports in the current study seemed to support this suggestion.

Participants did a variety of sitting, standing and supine mindfulness practices, and mindful yoga-type exercises, either directly pre-performance, or days or weeks before in preparation. The most popular pre-performance mindfulness exercises mentioned by participants were breathing practices (Fantine, Helen, Petra, Katya, Marguerita, Sheila, Suki, Carolina) and these were also used whilst on stage when tense (Karen, Suki) and before solos (Katya). Harry said that he had always done mindful or singing-type breathing exercises before performing, Elizabeth described warming her voice up mindfully, and Sheila used the *Headspace* mobile phone application. Three participants mentioned that they used psychoeducational mindfulness exercises such as Thought Bus or Thought Clouds (Appendix W) to help deal with unhelpful thoughts (Helen, Petra, Karen). However, Chloe did no targeted mindfulness before performing and reported little effect of mindfulness on stage and James said that he wished he had used mindfulness to help with some difficult performance experiences.

Awareness and response

Learning to be mindful is training for learning to notice and respond. Once aware in the present moment, one can choose whether or not to respond. Three participants described being aware of symptoms of MPA on stage but were able “to be with” or accept these sensations as a result of being more mindful. Marguerita said,

I think the breathing has helped me to calm down my fast breathing definitely and I don't mind so much anymore when my fingers are sweaty. So I think I used to think it was a problem that I had that but now I don't mind that any more that much.

Carolina described being aware of her voice shaking but, due to being mindful, she said that she could accept this effect of being nervous and continued to perform in a positive way. Helen described a problem with an adjudicator who publicly blamed her for a situation that was not her fault. She said that she noticed her thoughts, became present with the emotion, did some mindfulness exercises and did not let the experience damage her performance.

Ten participants reported that they had increased awareness and were able to respond better on stage (Elizabeth, Helen, Adelina, Fantine, Leonie, Katya, Sheila, Marguerita, Karen, Suki). Elizabeth noticed her MPA catastrophising thoughts and, after doing a mindful exercise, she said that she was able to feel grounded vocally and perform well. Adelina, Fantine and Leonie said that they noticed their minds wandering in performance when distracted by an audition panel's behaviour (Adelina) or physical tingling and shaking (Fantine). All three used mindfulness techniques to refocus on

playing, communicating, expressing and being in control which, they said, allowed more creativity (Leonie) and reduced panic (Fantine).

Katyia chose to do some mindful breathing as a feature solo came up when she noticed she became stressed and had negative thoughts. After performing well, she reflected on how she had let those types of thoughts affect her performance in the past, saying to herself, “What have I been doing for so long?” Karen became aware of tension in a performance, which was both physical and mental. She did Thought Buses (Appendix W) for the negative thoughts and breathing for her tension and, when the solos came up, she said that she felt relaxed and confident and they went well.

Clark, Lisboa, and Williamon (2014a) investigated the thoughts and perceptions of 29 conservatoire musicians before, during and after performances. They found that if negative self-talk could be controlled and if anxiety was viewed as facilitative, successful performances could follow. The current study extends that research by suggesting that mindfulness seemed to have helped those with MPA to develop psychological flexibility to help them become aware of their negative thoughts and change their perspective on anxiety, which resulted in better experiences on stage.

Audience perception

Davidson (2002) wrote that being aware of other people listening could affect arousal levels and disturb musicians' attention and mental balance when performing. Participants in the current study concurred with Davidson (2002) but noted further how mindfulness had helped them to deal with performing in front of audiences. From the mindfulness course's psychoeducational (mental health education and information) discussions,

participants learnt that they might imagine and create thoughts about what the audience was thinking whereas, in reality, it is difficult to know another person's thoughts without directly asking. As a result, participants said that they were able to reassess their perception of the audience and reported worrying less about the audience's imagined perceptions (Fantine, Marguerita, Sheila, Karen) and felt more ambivalent towards them (Elizabeth). For example, Karen said,

The typical thing that almost everyone does, I think, when they're in an audition is that you watch, look over at the panel and then you try to see their reactions or what they're writing or anything like that ...so then linking that with the mindfulness of not creating thoughts about what they're thinking or what their body language might be giving off allowed me to focus on giving a performance and being musical and everything and playing how I wanted to play rather than letting my thoughts take control of me and make me start fighting it.

Petra felt that mindfulness had helped her most in dealing with her perception of the audience.

3.5.3.2 Effects of mindfulness on performing

Many people's musicianship and performance skills are enveloped in MPA. Participants reported that being able to deal with this area more effectively allowed other positive effects in performance to emerge. Engaging in mindfulness strategies was described as having effects on mental and physical states, time perception, and creativity.

Performance mindset and physical effects

Fourteen participants said that they felt more focused, aware, in the moment, conscious or concentrated on stage as a result of learning mindfulness (Chloe, Elizabeth, Gordon, Helen, Adelina, Fantine, James, Leonie, Petra, Katyia, Marguerita, Sheila, Carolina, Karen). Physically, Marguerita sensed her fingers on the fingerboard more and Sheila described being aware of her breathing and support and cognitively engaging those techniques in performance. Reductions in MPA physical symptoms were also reported such as calmer breathing (Marguerita, Carolina), less heart pounding and clammy hands (Sheila), and Petra stopped being sick, which she felt was a great improvement.

Mentally, Karen thought her change of performance mindset was one of the main benefits of being more mindful because, if her mental state does not deplete, neither does her playing. Gordon's playing the year before had been criticised for being too influenced by other jazz musicians and he had felt methodical, mathematical and cerebral on stage when improvising. Gordon now felt freer, saying that his new mindful performance state "changes it [his playing] massively" and a friend who knew his style mentioned, "You sound like a totally different player!" Other peers had also given him compliments on his originality. In a similar way, Edwards (2014) found that meditation induced lower self-critical awareness during improvisation tasks for student soprano recorder players and post-improvisation mood improved.

Participants experienced a variety of mental changes from being more mindful on stage. James reported that he had more open awareness and Leonie said,

Sometimes I would be stressed for three weeks before something, which is so much time for just one song... You have to focus on the moment rather than be overthinking for a day or two before...it's almost like I keep my energy for the right moment rather than having all those thoughts and trying to do everything.

Sheila thought more about what she could do better, Elizabeth felt "liberated" (detached but connected), and Adelina experienced herself monitoring her performance from without.

Marguerita said that she found herself able to fix problems during performances without criticising herself. Paul and Sheila said that they stopped worrying about making mistakes on stage and Peter felt that it was okay now to make mistakes. Leonie discovered that she did not worry as much when the pianist made mistakes than she would have done and Helen said that she stopped dwelling on tiny mistakes as she had done in the past. Suki, Daphne, Carolina and Fantine felt that mindfulness helped to clear or tidy their thoughts aiding them to think straight and Paul, Carolina and Karen described feeling more confident in performance.

Participants also described having more positive feelings on stage (Carolina, Sheila, Helen, Fantine, Katyia, Sheila) where three felt more grounded (Paul, Helen, Elizabeth). Connolly and Williamon (2004) advised relaxation for optimal physical skill functioning and to manage over-arousal in performance. As mindfulness training includes elements of relaxation, this could have positive effects for a wide variety of instrumentalists and singers. Ten participants reported feeling calmer and more relaxed whilst performing after mindfulness training (Fantine, Marguerita, Sheila, Suki, Karen, Helen, Petra, Katyia, Carolina, Leonie), and five felt more in control (Paul), physically (Fantine, Leonie, Suki) and mentally (Daphne, Suki).

Time, blur and memory

When musicians perform mindlessly on autopilot, the performance can seem to be a “blur”, or go by very quickly, resulting in them being often unable to remember the performance, and being dissatisfied. This can be because of MPA where, for example, Fantine said that she was always left feeling “I wish I could do it again”, or, as Karen reported, boredom, where she could not seem to find an emotional reaction to the music she performed. MfM item 12 (Appendix B) asked whether participants found that performances went by in less of a blur after doing the mindfulness course. Six participants had improved scores (they performed less on automatic pilot) over the mindfulness course by +2 (Gordon, Fantine, James Katyia), Helen improved by +3 and Carolina by +4. In the interview, participants noted that they were able to remember far more of what happened on stage when engaging in mindful performance (Elizabeth, Gordon, Carolina, Helen, Fantine, Katyia, Karen, Adelina, Leonie). Five participants noticed the time perception of mindful performances as slower in comparison to their normal experience (Elizabeth, Adelina, Leonie, Helen, Marguerita) but Carolina felt that her performances were now proceeding at the right time. James, although his questionnaire responses had improved by +2 over the intervention, mentioned that even when mindful that his performances could still seem to be a “bit of a blur”, Daphne had a “half and half” reaction and Petra still found performances were blurry but felt that this was a work in progress.

Expressivity

Oyan (2006) hypothesised that mindfulness and creativity were linked. López-González and Limb (2012) found a temporal integration between working memory, and the sustained and direct attention needed for creativity, and mindfulness training has been seen to slow time perception (Kramer et al., 2013) and improve working memory and attention (Mrazek, Franklin, Phillips, Baird, & Schooler, 2013; Quach, Jastrowski Mano, & Alexander, 2015). This may explain why Adelina, Leonie and Fantine, who described being more mindfully aware on stage and had slower time perception, seemed to be able to use the extra time and clarity of mind they perceived in order to “bring new things to the performance” (Fantine) and improve their expressivity and creativity. Adelina said, for example,

Maybe the first time it happened, really a few times in life, I could be really aware and in the 'flow' of the music, it was really beautiful experience. It was because I could be inside but not too much so I could monitor a bit but it was also comfortable.

Therefore, it is possible that choosing to be mindful on stage could also encourage the several elements needed for a “flow” experience (Csikszentmihalyi & Nakamura, 2002) to come together.

Participants described their mindful performances as more musical (Petra, Carolina, Karen) with better phrasing (Elizabeth, Carolina). Elizabeth discovered feeling more playful on stage and Fantine more spontaneous. Helen and Gordon felt freer where Gordon thought being more mindful had improved his improvising as he could respond in the moment to whatever sounds came to his ears. Adelina discovered that she could change her sound

in the moment and Sheila heard that her sound changed from pinched to being more expansive due to being mindful of her technique on stage.

Participants described that it was easier to express themselves through music (Fantine, Gordon, Carolina) and Fantine felt that her communication had improved. Participants also said that they played with expressive musical elements more such as dynamics (Fantine, Leonie, Petra), articulation (Petra) and rubato (Fantine) when “in the moment” on stage.

3.5.3.3 Post-performance effects

When Helen had made a tiny breathing mistake in a performance before learning mindfulness, she described going home and chastising herself. Sheila described being in a “bad rut for days” if an audition went badly in the past. Petra and Katyia said that they were never pleased with their performances even if they had gone well. Over the course of the mindfulness intervention, these participants reported more self-kindness and as a result, Helen discovered that she did not now dwell on past mistakes, Katyia reported, “I didn’t hate myself afterwards”, Petra described feeling less annoyed after performances than usual and Sheila said she only “bawled my eyes out” for one day after a bad audition and felt better the next day. Marguerita did not feel she had a good performing experience after doing mindfulness but she felt it had been useful to put the skills into practice.

Final reactions

Elizabeth had been worried that being more mindful might detach her from her connection with music but she described feeling a different type of connection now and found that her performances were “not perfect, but better”. Petra said of mindfulness’s effects on her as a musician that,

When I got here, I feel like in the right setting I will be able to perform well. I know that I'm probably not, I don't want too crazy a career because I, first of all, don't really want it and I don't think I'd be able to handle it even if I was super mindful but I feel like the kind of things that I want to do in life, I can see myself being able to do them now.

Carolina described being excited by her mindful performing experience and took away a nice memory and Karen thought that her mindful auditions went really well and the strategies were effective. She said that she would do mindfulness before performing from now on and would recommend it to others for MPA. Similarly to two participants in Hribar (2012), after being more mindful on stage, Adelina and Fantine felt happier as performers, Leonie, Marguerita and Helen described enjoying themselves on stage and Marguerita felt that she had achieved more and felt more satisfied as a result. Helen felt that the experience of performing more mindfully had been “life changing”, she had had a good performance experience and was pleased with the adjudicator’s compliments. “I had so much fun...it’s just I feel like a different singer,” she said.

It would be expected that mindfulness would have a positive effect on MPA, as it seems to have had a positive effect on anxiety as evidenced in clinical research (e.g. Goldin & Gross, 2010; Gotink et al., 2015). However, mindfulness seems to have had far more wide-ranging positive effects in performance, sometimes as a result of reducing MPA, but also through other

mechanisms such as time perception changes and more awareness in general leading to enhanced creativity, control and pleasure in performing.

3.6 Summary

Teaching mindfulness to music students at the GSMD was reported by them to significantly and positively impact on their lives as music students, not just in health and well-being as suggested by Hribar (2012).

The areas in which the participants reported substantial improvements included their experiences in lessons, relationships with instrumental teachers, private practice, learning technique, dealing with MPA and in performance. Some participants reported that their teachers had independently noted improvements in them that the participants attributed to increased mindfulness. All the participants were happy with the course, its impact on their daily experiences and they felt that it would continue to improve their lives into the future. They would highly recommend it to other musicians and some participants advocated its inclusion at other higher education music institutions.

STUDY TWO: MINDFULNESS FOR SINGERS:

A REPLICATION STUDY

Chapter Four – Mindfulness for Singers:

Introduction, method and analysis

4.1 Introduction

This second study also addressed the research question: What are the effects of teaching mindfulness to student musicians? However, the aim in this case was to conduct a replication of a previous pilot study to explore if similar results are found using a larger, more diverse demographic.

The pilot Mindfulness for Singers (MfS) study was completed for a Master's qualification (Czajkowski, 2013, see also Czajkowski & Greasley, 2015). In that study, benefits of mindfulness were found in the areas of lessons, practice, performance, and general life. In lessons and practice, mindfulness enhanced concentration and focus, and improved aural and physical sensory awareness. This led to improvements in learning and applying singing technique, enhanced transfer of technique to other singing activities, and improvements in vocal sound and tone. In lessons, teacher/pupil relationships were also positively affected and in practice, problem solving (such as dealing with extraneous vocal tension) was easier, quicker and effective. Participants also reported benefits on their music performance anxiety, performance creativity, ability to take criticism, and in daily life. The FFMQ (see Chapter 2, Section 2.3.2), which was completed pre- and post-intervention showed significant improvements in two facets:

Non-Judge and Non-React. Teachers identified six of the eight participants eligible for the teachers' blind study from a combined student total of 32.

There were only eight participants in the original quasi-experimental 1-year pilot study so it was difficult to see if the positive findings could be generalised to other singers, and if mindfulness could reliably be recommended for inclusion in university music departments and conservatoires. A study with a greater number of participants was needed to see if the results could be replicated with a larger demographic over a broader field of experience. Also a more robust methodology was required because the researcher and the course developer and implementer were the same person.

In the current replication project reported here, the original blind teacher study component and the Five Facet Mindfulness Questionnaire (FFMQ) were retained. The methodology was made more rigorous by including a controlled design for the FFMQ, the introduction of a new, purpose-designed Mindfulness for Musicians Questionnaire (see Chapter 2, Section 2.3.2), a 3-month longitudinal element, and a diary element. The study was extended to include student vocal majors and their teachers at a university and a conservatoire, and was conducted over a period of 2 years.

A secondary aim, if the replication showed similar results, was to explore the possible mechanisms at work that encouraged the effects described by the participants.

4.1.1 Reflexivity statement, pedagogic underpinnings and development of the Mindfulness for Singers course.

I am an experienced performer and voice teacher. After studying postgraduate voice at the Royal College of Music from 1995-1997, I embarked on a 10-year performing career that has run alongside a 20-year teaching portfolio with eight of those years teaching vocal majors at Reading University.

My vocal coach introduced me to *The Power of Now* by Eckhardt Tolle in 2006. Soon after, I began to incorporate some of my personal present moment experience into my singing, auditions, performing, and teaching. This led to a realisation of how generally unaware my singing students were of what they were doing when they were singing and when I introduced them to the “power of now” it also seemed to have beneficial effects on them. In 2009, an adult student brought it to my attention that I was teaching something called “mindfulness” and I decided to search deeper into this new word, and nascent world. This led me to complete the aforementioned investigatory Master’s pilot research, and finally to this PhD.

I took part in the 8-week Mindfulness Based Pain and Illness Management (MBPM) course in 2012 in preparation for running the Master’s pilot study in 2013. Using my knowledge as a student, performer, and vocal teacher, I based the Mindfulness for Singers course on the 8-week mindfulness courses devised by Jon Kabat-Zinn (1990) and Williams and Penman (2011), but targeted it towards student singers in higher education. In 2015, I attended the MBSR course in York, UK, as continued professional and personal development in preparation for this PhD study. Sally Rose, University of Leeds’ Staff Counselling and Psychological Support Service

Manager, mentored me throughout the two-year PhD study. She is a highly experienced mindfulness teacher who has run over 29 MBSR courses and was trained at Bangor University, which is a highly-respected hub for mindfulness teacher training.

The course was developed with higher education pedagogic research in mind and utilises a large amount of student-led learning as recommended in Biggs (2003) through personal observation, practical involvement, and group and pair discussions, which creates experiential learning or “the process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p.38). Healey (2005) recommended the inclusion of intense inquiry-based personal reflection by students in higher education. This occurred as part of the course and during the research interview process where participants were encouraged to consider the effects and depth of their mindfulness learning in both daily life and as singers. Race (2007) recommended the use of online resources to support university learning. Therefore a dedicated, resource-based website was developed which included MP3s of the weekly formal practices, electronic reproduction of all paper handouts for easy retrieval and reference, and links to articles and further reading (www.mindfulnessforsingers.co.uk). There was also consideration of those in the group who may have learning difficulties or special needs by introducing autism/ASD-inspired visual timetables for each session, and consideration of the needs of individual students for the Mindful Walking, Yoga, and Mindful Eating exercises.

Following the process of a critically reflective teaching review recommended by Brookfield (1995) and in line with Healey’s (2005)

recommendation that higher education teaching should always include up-to-date research, I updated the PhD MfS course in several ways as outlined in the method (see Chapter 4, Section 4.2.5). I reflected on the experience of teaching the mindfulness course from the current students' eyes through the anonymous diary feedback and took into account the previous pilot studies' participant interview feedback. I asked for colleague perception by discussing my teaching experience with my mindfulness mentor. I reflected on my personal experience as a mindfulness practitioner and singer, and kept abreast of current theory and research in the field of mindfulness.

4.2 Method

4.2.1 Ethical approval

For the first and second year, ethical approval was gained from Leeds University (UoL) (see Appendix I). For the second year, after 6 months' informal negotiations with Leeds College of Music (LCOM), formal ethical approval was gained from LCOM to extend the study to their institution (Appendix K) and amendment approval was gained from UoL to include LCOM in the study (Appendix X).

4.2.2 Participants

Participants were recruited via convenience sampling. The participants were recruited from vocal students at the University of Leeds, Leeds College of Music, and from singing teachers employed at those institutions. Students were invited to take part in a free mindfulness course and offered £20 for their participation as experimental or wait-list control participants, or £4 as non-wait-list control participants. Teachers were offered payment pro-rata for their time. Funding was provided from the PhD scholarship award.

For UoL students, Information Posters (Appendix Y) were displayed around the School of Music. Invitation Posters were displayed three weeks later (Appendix Z) and emails were circulated to the student population to recruit experimental (Appendix AA) and control (Appendix AB) participants. A similar protocol was run at LCOM, except that their recruitment information was displayed on electronic screens around the institution as paper posters were not allowed, and control and experimental participation invitation emails were combined to reduce excessive email communication.

Student participants

Over two years at both institutions, a total of 39 participants (males, n=5) completed the MfS course. Participant demographics, enrolment and completion details are in Table 4.1. All 39 completed both questionnaires, which includes LCOM's 10 wait-list controls of whom nine did a third questionnaire in session eight of the course as part of an insightful and reflective exercise. One wait-list control participant, who missed session eight did not complete a post-intervention questionnaire.

38 participants from both institutions over two years completed the first interview immediately after their course. Nearly 70% completed the second 3-month interview (n=26; males, n=3). Details about the participants' type of vocal study are included in Table 4.2. At UoL, a total of 11 controls (males, n=4) completed both questionnaires but did not take part in the intervention or interviews.

Table 4.1 *Student participants who enrolled for the MfS Intervention from 2015-2017*

UoL enrollers	Participant	Number	Gender (m)	Mean age	(SD)
MfS1	Experimental	n=11	n=1	-	-
MfS1	Control	n=6	n=2	-	-
MfS2	Experimental	n=6	n=0	-	-
MfS2	Control	n=5	n=2	-	-
Completers					
Total	Experimental	n=17	n=1	21.88	6.85
Total	Control	n=11	n=4	19.81	1.47
LCOM enrollers					
MfS2	Experimental	n=17	n=2	-	-
MfS2	Wait-list	n=13	n=2	-	-
Completers					
Total	Experimental	n=12	n=2	20.41	1.50
Total	Wait-list	n=10 (12*)	n=2	20.16	1.46

*The completed wait-list control questionnaire data from MfS Course dropouts was included in the final analysis.

Table 4.2 *Vocal styles studied by the MfS participants 2015-2017*

Type of vocal styles studied	Participant
Classical	U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U13, U15, U17, C1, C5, C9, C12, C18, C20
Opera/operetta	U4, U7, U10, U13, U17, C1, C5, C12, C13, C14, C20
Popular	U4, U5, C3, C4, C6, C7, C8, C9, C10, C11, C15, C16, C17, C19, C21
Jazz/blues	U5, U12, U14, U16, C2, C8, C16
Church	U11, U13, C12
Music theatre	U11, U15, C18
Japanese/Spanish	U3, C11
Own compositions	C4, C17, C19, C21

Dropouts

At LCOM, two dropout wait-list control participants' completed data were included in the final analysis and they were offered £4 for their contribution. One participant (from LCOM) dropped out from the first interview component without explanation. Dropout information is detailed in Table 4.3.

Table 4.3 *Dropouts from the MfS Intervention 2015-2017*

UoL	Participant	Gender	Classes attended	Reason
MfS2	Experimental	F	1	Left university
LCOM				
MfS2	Experimental	F	0	Glandular fever
MfS2	Experimental	F	1	Timetable clash
MfS2	Experimental	F	0	No appearance
MfS2	Experimental	F	1	Timetable clash
MfS2	Experimental	F	0	Timetable clash
MfS2	Wait-list*	F	0	Timetable clash
MfS2	Wait-list*	F	2	No reason given
MfS2	Wait-list	F	0	Timetable clash

*The completed wait-list control questionnaire data from MfS Course dropouts were included in the final analysis.

Teacher's blind study eligibility

Twelve student participants at UoL were eligible for the teachers' blind study. Five participants were not eligible for the following reasons: they had changed teacher over the Christmas vacation, they had stopped having lessons, the institution did not employ their teacher or they were subsequently found not to have a current teacher. At LCOM, three of the 22 student participants were not eligible for the teachers' study because their teacher did not respond to the invitation to take part. A total of 31 student participants from both institutions were eligible for the teachers' study (n=11, males n=2).

Teacher participants

In total, 12 teachers were approached to take part in the study. At UoL, three female teachers were approached and all consented to take part over the 2-year study. Vocal teachers at LCOM were approached only for the second year of the study (n=9; males n=2) and eight (males n=2) chose to take part. Two teachers at UoL (Despina, Beatrice) and three at the LCOM (Lucia, Papageno, Tosca) taught classical vocal style, one teacher at the university and one at the conservatoire taught jazz styles (Ella, Sade). The rest taught popular vocal styles at LCOM (Elvis, Sade, Adele, Enya, Joni).

4.2.3 Materials

The questionnaires used for this study included the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) (see Appendix A) that was used for the original pilot MfS study, and the Mindfulness for Musicians questionnaire (MfM) (see Appendix B) developed for the current project. For more detailed information on both questionnaires, please see Chapter 2, 2.3.2. To summarise, the FFMQ is a respected, well used, and validated mindfulness questionnaire (Andrei et al., 2016) used for clinical and non-clinical demographics. It is used to assess levels of mindfulness over the duration of a mindfulness course and has 39 statements with 5 Likert-style responses for each statement. The MfM was designed in response to the original MfS pilot study because, in reading the FFMQ responses in conjunction with the interview responses from that study, some subtle relationships between the singers' vocal experience of mindfulness were not reflected in the more general FFMQ responses. The

MfM is worded and designed in a similar style to the FFMQ but with 15 statements covering the five facets explored through situations pertinent to music student participants. It was hoped that the targeted MfM questionnaire would give further insight into the relationship between mindfulness and singing over the intervention when used both as a questionnaire in its own right and in triangulation with the interview responses. Both questionnaires were analysed using the score sheet in Appendix C. The items on both questionnaires were negatively and positively worded to help prevent response bias, so in calculating the results, negative and positive scoring was carefully observed. Plastic acetates were made with the positive and negative scores to be placed over the paper score sheets to aid accurate reverse and normal scoring. Excel was used to help in accurate reverse and normal scoring of results from the online questionnaire responses.

4.2.4 Design

This study was run at the UoL for two years and, during the second year, LCOM students and teachers were also invited to take part which allowed further exploration of the effects of mindfulness on a wider range of singers and musical styles (see Table 4.2). LCOM do not have a dedicated ethics committee but, after a 6-month dialogue with and amongst managerial staff, ethical approval to extend the study was gained from UoL and LCOM (see Appendices K and X).

This study is a mixed methods experimental design with an emphasis on qualitative methods. The independent variable is the mindfulness intervention (MfS course) and the dependent variable is the effect of the MfS

course on the student participants measured using the following: two controlled (UoL) or randomised controlled (LCOM) pre- and post-questionnaires (FFMQ and MfM) comparing levels of mindfulness through the facets of Observe, Describe, Act with Awareness, Non-Judge and Non-React (see Section 2.3.2); two semi-structured interviews, one immediately after the intervention and another 3 months later; an anonymous intervention-concurrent diary; and a teachers' blind study.

Firstly, the FFMQ and the MfM were used pre- and post-intervention for all the student participants. At the UoL, a controlled design was used with participants who chose to take part either as experimental participants who did the intervention, or control participants who did not. At LCOM, all student participants expressed interest in taking part in the intervention. As there were twice as many participants as expected at LCOM, and there were at least eight weeks from the information briefing sessions (which mirrored the length of the intervention) until the start of the intervention, it was decided to randomly allocate them to wait-list controls and experimental participants in order to run a randomised controlled trial. The questionnaire data gathered by these methods is reported separately by institution.

A diary was introduced as a concurrent part of the intervention. Participants were asked to note the length of time engaged in mindfulness activities and record thoughts, questions, or observations during the weeks between sessions. This gave participants the opportunity to give feedback that was useful for my reflection as the course leader, and provided an anonymous method for participants to raise any concerns. From a research viewpoint, it helped to reduce demand effects and captured changes in student

participants' mindfulness and vocal behaviour as the course progressed. Immediately after the intervention, semi-structured interviews of approximately 30 minutes were run with MfS course student participants. A second semi-structured interview of about 20 minutes' duration was run 3 months later after performance examinations.

A semi-structured interview blind study involved MfS course participants' teachers. They were originally invited to two interviews scheduled at similar times to the students, but it was discovered early on that many teachers stopped giving lessons just after the intervention because the final term was mainly for private study and examinations. As this meant that they were unlikely to be able to report any further observations, all teachers bar one were interviewed once, directly after the intervention (the average length of interviews was 20 minutes). A timeline detailing the research design operated at the university can be found in Figure 4.1, and for the college, see Figure 4.2.

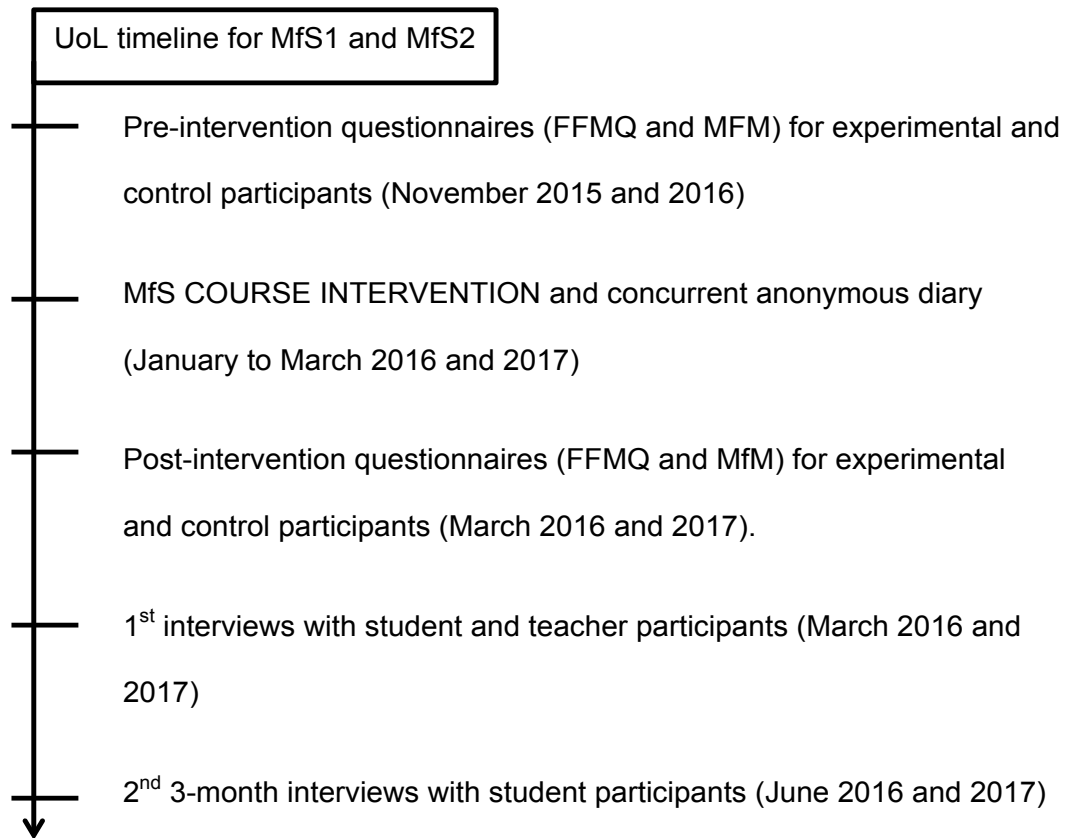


Figure 4.1 UoL controlled experimental design timeline.

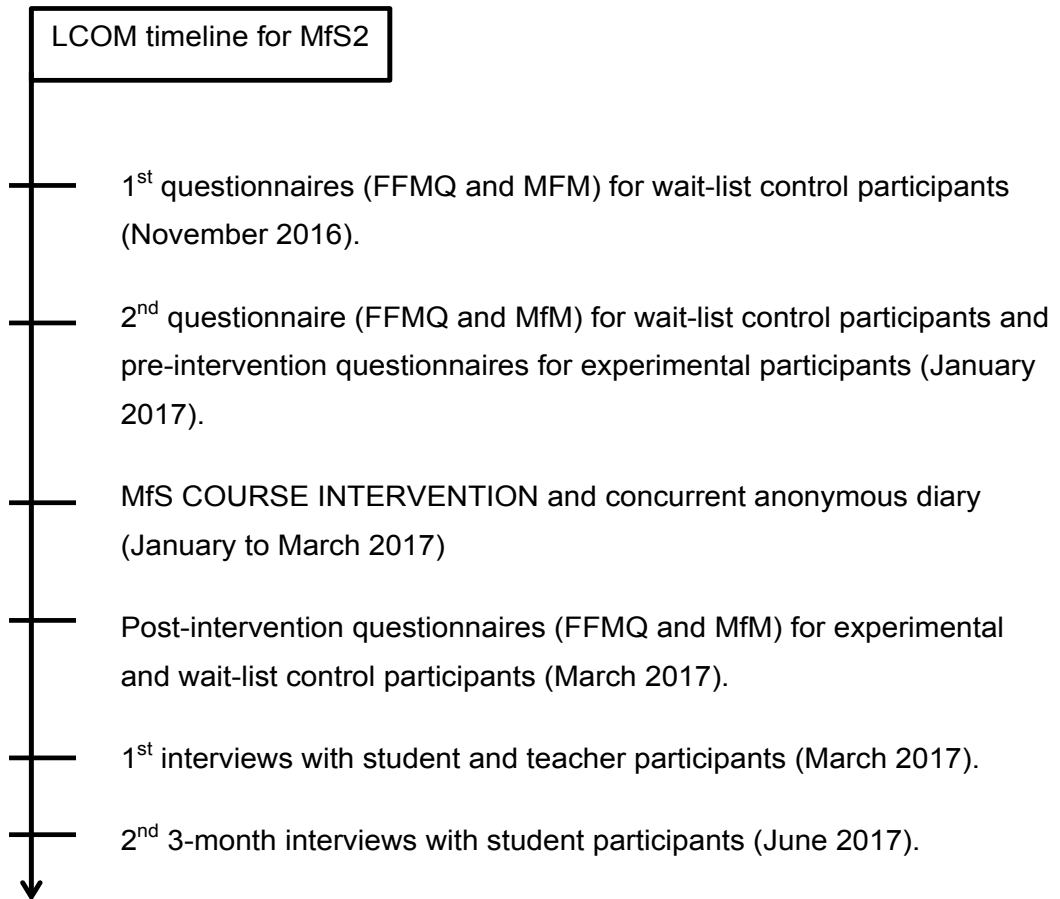


Figure 4.2 LCOM randomised controlled experimental design timeline.

4.2.5 Procedure

4.2.5.1 Preparation and pre-MfS data gathering

All students who responded and wished to be experimental participants at both UoL in the academic years 2015-2016 and 2016-2017, and LCOM in the academic year starting in 2016-2017, were invited to information briefing sessions in the first term to learn what the course offered them, the commitment expected from them, and to receive the Student Participant Information Form (Appendix M) in paper form. If they then chose to enrol, they were asked to fill out the Student Consent Form (Appendix Q), the Yoga Consent Form (Appendix AC), and the Student Registration Form (Appendix

AD). At UoL, experimental participants filled out paper versions of the FFMQ and MfM Questionnaires (Appendices A and B) during the briefing sessions. For safety reasons, no student was allowed to participate as an experimental participant unless they had been to an information briefing session. Part of this session clearly stated that the MfS Course was not a clinical or therapeutic intervention and included recommendations for those who knew they had clinically diagnosed mental issues, and who still wished to take part, to consult with medical professionals before taking the course. Alongside recommendations from the National Center for Complementary and Integrative Health (NIH, 2006) and NHS/Mental Health Foundation recommendations ('FAQ: Be Mindful', n.d.), this information was aimed at those in the group who might have PTSD, schizophrenia, bipolar, clinical anxiety, depression, or other related mental health conditions.

UoL experimental and all LCOM participants were asked to put the name of their vocal teacher on the Student Registration Form and teacher participants were recruited from this list. Vocal teachers were sent an invitation letter (Appendix AE) and a follow up email (Appendix AF). Those who agreed to take part were given the Teacher Information Sheet (Appendix N), completed Consent Forms (Appendix R), and Registration Forms (Appendix AG).

UoL control participants were not met in person and were contacted via email only. Those who registered interest received an email with the Participant Information Details and Consent Details combined (Appendix O). At a similar time as the UoL experimental participants filled out their paper forms, control participants gave their details, consent, and completed FFMQ

and MfM questionnaire responses online using the Bristol Online Survey tool in accordance with University of Leeds recommendations.

Immediately after the briefing sessions, LCOM wait-list participants were requested by email to submit their first FFMQ and MfM questionnaires using the Bristol Online Survey tool. In the second term, a week before the intervention started, LCOM wait-list control participants were requested via email to fill out their second set of FFMQ and MfM questionnaires online using the Bristol Online Survey tool. At the same time, LCOM experimental participants were requested via email to complete their pre-intervention FFMQ and MfM questionnaires also using the Bristol Online Survey tool. All LCOM participants completed their final FFMQ and MfM questionnaires in paper form in the last session of the MfS course.

Rooms to house the course were negotiated and booked in each institution, and interested participants' timetables were gathered and analysed to find the optimal times for the course to run so that as many participants as possible could take part.

The MfS Course was run in the second academic term (after Christmas) at both institutions. This allowed singing teachers to have had at least one term's experience teaching their students before being asked to observe any behaviour change that might be attributable to the intervention in order to identify possible MfS participants.

4.2.5.2 The Mindfulness for Singers course

The 8-week course was accompanied by a dedicated website (www.mindfulnessforsingers.co.uk) with information about the whole course, the session details for each week, the weekly hand-outs and practice instructions (in case participants lost their paper copies), MP3 tracks with the formal practices in both playable and downloadable formats, and general information about the researcher and contact details.

A course duration of 8 weeks was used because that is the length that Jon Kabat-Zinn initially chose for the MBSR course (Kabat-Zinn, 2011). Mindfulness courses of 8 weeks' duration have also been shown to be efficacious in clinical settings (Gotink et al., 2015). Clinical MBSR and MBCT sessions are usually 2 to 2.5 hours in length and can be held with large classes of up to 20 or more participants. The sessions in the MfS were 1 hour in length. This is because it was considered that the participants were non-clinical, class sizes were kept small enabling more participation in discussions and activities, and that this time length would fit in well with their existing timetables.

Each session was accompanied by a visible timetable, hand-outs pertinent to the week's exercises and practice, and a blank diary/journal sheet (Appendix G) to be filled out during the week and handed in anonymously at the beginning of the following week. The researcher provided participants with the resources needed to take part in the mindfulness exercises such as yoga mats, blankets and pillows for supine exercises, food items, and pens and paper for any writing tasks.

There were a few modifications to the original MfS course in response to reflective consideration, mentor advice, and participant request.

- Introduction of a weekly visual timetable.
- New research was mentioned as discussion demanded: links between mindfulness and music-making (Steinfeld & Brewer, 2015); mindfulness and listening (Diaz, 2013); event-related potentials (Gunkelman & Johnstone, 2005); and the positive effect of short mindfulness exercises on academic memory recall (Ramsburg & Youmans, 2014).
- Participants were asked to wear name stickers for the first few sessions to aid familiarity and group cohesiveness.
- Introduction of the diary had the effect of changing some content, as questions raised anonymously were addressed within subsequent sessions.
- Participants' peer-to-peer criticisms in the Week 7 Mindful Performance Workshop were recorded and sent to participants for later reflection.
- The Exploring Difficulties practice was elongated and modified to include references to performance anxiety: general information (Kenny, 2011); yoga and MPA (Khalsa, Butzer, Shorter, Reinhardt, & Cope, 2013); and mindfulness and MPA (Farnsworth-Grodd & Cameron, 2013).

More details about each of the practices learnt in the mindfulness course are available in Appendix W, and further information about the topics covered in each week and the terminology used are available in Appendix AH.

Week 1

Week one (visible timetable see Appendix AI) started with a welcome talk, introductions, and information about the course accompanied by the Overview and Contents hand-out (Appendix AJ). There followed a discussion on the definition of mindfulness, and a discussion on the concept of “being on autopilot” (see Appendix AH) and participants offered their own experiences. Participants then started learning mindfulness with a Breathing Awareness exercise (Appendix W) (Kabat-Zinn, 1990), which led into a group discussion on the experience of becoming aware of the breath in a new way. This exercise was then expanded into the Breathing Journey exercise (Kabat-Zinn, 1990, adapted by the author, see Appendix W). After a group discussion comparing experiences from the two breathing exercises, participants learned the 3-Minute Breathing Space (Appendix W; hand-out in Appendix AK) (Williams & Penman, 2011) and explored the experience in discussion. This flowed into a discussion about the present moment and the types of task participants might do on autopilot. Participants chose a task, such as brushing teeth, of which to become particularly aware during the week as an informal mindfulness practice. Then the Mindful Movement exercise was introduced (Appendix W; hand-out in Appendix AL) (Kabat-Zinn, 1990; Williams & Penman, 2011) as the formal 10-minute daily practice for that week and was followed by an experience discussion session. Blank journals were handed out, questions were invited, and the session ended.

Week 2

This week (visual timetable in Appendix AM), like most subsequent weeks, started with the 3-Minute Breathing Space, a recapitulation of the previous week and a chance for participants to ask questions and share thoughts and experiences from the week's mindfulness practices. Participants placed their completed mindful journals face down on a nearby table to retain anonymity.

A research-based educational component explored the commonality of modern day stress and anxiety with reference to its historical necessity for successful human evolution, and encouraged participants to share their own experiences particularly in the field of music performance anxiety. This was followed by a talk about somaesthetics (body consciousness) and the body/mind connection that led into the participants experiencing the Body Scan (Appendix W; hand-out in Appendix AN) (Kabat-Zinn, 1990; Williams & Penman, 2011, adapted by the author for singers), which was that week's 10-minute formal practice. After a group discussion about the experience of the Body Scan, there was a talk about the expectation and reality of doing mindfulness, and participants were introduced to the concept of Being and Doing modes (see Appendix AH). Participants then did a Mindful Breathing exercise (Kabat-Zinn, 1990; Williams & Penman, 2011), had a discussion, and talked about research on the effects of mindfulness on health. Participants were encouraged to become aware of a different habit/task for the next week as their informal practice. Questions were invited and journals were distributed.

Week 3

Week 3 (visual timetable in Appendix AO) began like Week 2. The first new exercise was Mindful Yoga (Kabat-Zinn, 1990) with yoga poses used to explore the relationships between the awareness of necessary muscles, the relaxation of unnecessary muscles, and the association of the body's different postures to breath changes. This was followed by a research-based talk about performance nerves where the participants shared their own experiences. Then the participants were introduced to the mindful concept of primary and secondary suffering (see Appendix AH) and invited to approach possible future performance nerves with this in mind. They did two versions of the Mindful Breathing exercise: the Breathing Journey, and the Breathing Counting exercise (Appendix W; hand-out in Appendix AP) (Williams & Penman, 2011). These were the 10-minute formal weekly exercises. A post-exercise group discussion was followed with a discussion about our present moment experience of life as pleasant, unpleasant, or neutral. As an informal practice, participants were encouraged to become aware of how they viewed moments during the following week as pleasant, unpleasant or neutral, and to be curious as to their tendency of mind in moments of neutrality. Questions were once again invited, food intolerances ascertained in preparation for the Mindful Eating exercise in week 4, and blank journals were handed out.

Week 4

Week 4 (visual timetable in Appendix AQ) started like Week 2. Then a research-based talk was followed by a group discussion on perception, criticism, and judgment. These subjects were subsequently practically explored in the Mindful Eating exercise (Appendix W) (Kabat-Zinn, 1990; Williams & Penman, 2011). This exercise was done with raisins, and then dairy chocolate or vegan chocolate (at participants' preference). After a group discussion about the experience, there was a talk about the concept of "cataloguing" (i.e. systematic listing, see Appendix AH). Participants went into pairs to take part in a Mindful Listening exercise (Appendix W) where for a specified length of time they were encouraged to listen attentively and mindfully to each other talk without mentally "cataloguing" or preparing a response. After a short insightful discussion, this was extended into the Sounds and Thoughts practice (Appendix W; hand-out in Appendix AR) (Kabat-Zinn, 1990; William & Penman, 2011), which was introduced as the 10-minute formal practice that week. The informal practice in Week 4 was a musically-based Mindful Listening exercise (Appendix W; hand-out in Appendix AR). As usual, questions were invited and the journal was handed out.

Week 5

Week 5 is a very practical week (Appendix AS) involving two Mindful Walking exercises (Kabat-Zinn, 1990). The first exercise involved participants coming into an intense present moment awareness of their own normal walking style, posture, and balance, watching others walk, copying others walking, and finally observing and experiencing walking as though going on

stage to perform. This was punctuated by discussions about what had been observed and experienced. Then participants were taken on a pre-prepared mindful walk around their institution's campus (Appendix W) followed by another discussion when back in the room before being given a Mindful Walking hand-out (Appendix AT) as the informal practice for the week and recommended to use the Body Scan or Mindful Movement again as the formal 10-minute daily mindfulness practice.

Week 6

Week 6 (visual timetable in Appendix AU) started in a similar way to Week 2. This was followed by a talk about how we orientate ourselves to life, the choices that mindfulness can give, and a recapitulation of pre-performance nerves strategies. Participants were informed about the next session, the Mindful Performance Workshop, and a discussion followed. Then participants were introduced to the Exploring Difficulties and Loving Kindness exercise (see Appendix W; hand-out in Appendix AV) (Williams & Penman, 2011), which was the next week's 10-minute formal exercise, should the participants wish to do it, and this was followed by a reflective group discussion. The informal weekly practice could be chosen by the participants from the list on the Week 6 hand-out (Appendix AV).

Week 7

Week 7 is unique to the MfS course where participants were able to use all the mindfulness techniques learnt in the previous few weeks in a highly targeted manner during a singing performance workshop (visual timetable, see Appendix AW). Where teaching and experiences in the other weeks were

targeted towards both singing and daily life, this week's session was purely dedicated to mindfulness for participants as singers.

After the normal question and answer session at the beginning of the session, participants, many of them feeling nervous, were taken through the Breathing Journey, Breathing Counting, a sitting Body Scan, and some Mindful Movement to test these various exercises on pre-performance nerves. Participants pulled coloured stones out of a bag before each individual performance slot to determine by chance if they would sing next. Each performer was asked to stay in the moment as much as possible when performing, audience members were asked to stay in the moment as much as possible when listening. After each individual performance, audience participants were asked to give constructive critical feedback. The performing participant was again reminded to stay as much in the present moment when listening to the criticism in order to accept and mindfully hear all the feedback. Performances and criticisms were recorded and disseminated to each participant after the session so that they could listen and see if their memory matched the reality. Audience members were also asked to see if they could tell if and when the performer was in the present moment. This was then correlated with the performer's self-reported experience. At the end, the journal and the final hand-out (Appendix AX) were distributed. The weekly 10-minute formal practice was to be chosen by participants from the previous 7 weeks' experience, and their informal practice was also their choice. They were also encouraged to search for other recommended sources of mindfulness practices, such as on the Internet and YouTube.

Week 8

Week 8 (visual timetable in Appendix AY) started the same as Week 2 and a summing up talk was given. This was followed by a Nourishing and Depleting exercise (Appendix W) and a discussion, followed by a long supine Body Scan. Experimental participants and wait-list controls completed the post-intervention questionnaire as part of an insightful and reflective exercise at the end of this session, which gave participants the chance to reflect on their experience of mindfulness through this medium.

4.2.5.3 Post-intervention data gathering procedure.

Student and teacher participants were interviewed in the week following the eighth session before the Easter vacation. All interviews were recorded on two machines, a computer using Audacity and the researcher's mobile phone using a recording application, in case one or the other froze or crashed. All interview recordings were taken after consent had been given and filenames were anonymised at source.

The student interviews involved semi-structured questions (Appendix D) which covered general experience of the course, questions about the effects of mindfulness in singing lessons, practice and performance, and in their daily lives. They lasted, on average, for 30 minutes each.

The teacher interviews also involved semi-structured questions (Appendix F) and started with a reminder about what mindfulness was and which criteria they had been asked to observe (Appendix N). Then they were asked how many students they had in total and which of those they thought might have done the mindfulness course. From this point on, interviews could

either explore why a participant had not been chosen or why a participant had been identified. Due to ethical considerations, information about students who were identified but were not part of the study was not encouraged. Interviews lasted, on average, for 15 minutes. Teachers were offered payment pro rata for their time but, very generously, none of the teachers would accept payment when offered.

A reminder email was sent to the UoL control participants to complete their second questionnaire via the Bristol Online Survey tool in the same week that the UoL experimental participants were completing the MfS Course Week 8 session and their post-intervention questionnaires. They were paid on retrieval of their completed online questionnaires.

Three months later after completion of performance examinations, MfS experimental participants were contacted via text and email and invited to take part in the final interview. This interview was also semi-structured and followed the same line of enquiry as the first interview (see Appendix D) except a little more time was given to explore participants' experience of mindfulness on performance. These interviews lasted, on average, around 20 minutes.

MfS participants were offered their promised remuneration at the end of the research elements and all bar one accepted.

4.2.5.4 Challenges

Involving students, teachers, and academics from two different institutions provided many logistical problems that needed to be overcome. The first year was easier using only students and facilities at the university but, in order to extend the demographic of the study, it was decided to offer

students at the local music conservatoire the chance to take part. This decision was made in order to embrace as many styles of singing as possible. At the University, most of the students study classical styles of singing, although there are a few jazz students. However, at LCOM, most students study popular music styles with a few students focusing on jazz and classical singing styles. This methodological decision provided a more balanced demographic of musical styles for the MfS study. There were 6 months of negotiation with the conservatoire before ethical approval was granted and the project could go ahead. From that point on, room bookings, institution timetables, student and teacher contact restrictions due to necessary privacy and security rules, and student schedules proved to be organisational challenges. Teachers at the conservatoire were approached initially via letter but, when that proved to be ineffective, they were contacted via email through academic staff until contacts were established. During the spring term, the MfS course needed to navigate limited room booking availability at the conservatoire. Although times and dates for the designated room were pre-arranged with the room organiser, it was often used by other LCOM staff on an adhoc basis that caused regular double bookings. The course also had to accommodate students' lessons and seminars reorganised by LCOM at short notice, a Reading Week where some participants went home, and an Opera Week that was compulsory for "classical track" participants. Despite this, I sent regular MfS session reminders, which were appreciated by the participants, and I tried to be as flexible as possible, which meant that most affected participants were accommodated by the timetable and supported by extra small group or one-to-one catch-up sessions. A few dropouts were

unfortunately inevitable due to institutional timetable rescheduling during the week the course started.

The Exploring Difficulties practice (Appendix W) is difficult by nature. Preparations were made by informing the Counselling Service at both institutions and providing students with information about counselling and counselling services during the session should it be needed during the week. In the first iteration at the university, two participants became tearful in the class, although they described this experience as cathartic. I contacted Sally Rose, my mindfulness mentor, for advice and made myself as available as possible should anyone need support or guidance during this particular week but no one contacted me.

4.3 Analysis

Quantitative data were scored (Appendix C) and analysed using SPSS. Normality tests were run to check homogeneity of variance, and subsequently parametric and non-parametric tests were used as appropriate.

In order to allow the maximum flexibility in analysis of the various types of qualitative data gathered under a pragmatic mixed methods based methodology, analysis was done using thematic analysis (Braun & Clarke, 2006) and used NVivo, Excel, and Word for Mac software (see Chapter 2, Section 2.4.2). Braun and Clarke's (2006) six-step process was followed carefully for analysis of the interview, diary, and MfM questionnaire data.

All personal data for participants were compiled onto a double password secured document and held on a password secured computer. This document included anonymity details such as interview identifiers,

questionnaire identifiers, teacher identification status, and demographic details to facilitate triangulation of data during the analysis process. Each interview was heard in its entirety, transcribed into a Word document, saved under an anonymous identifier and uploaded to NVivo software. The handwritten diary data were transcribed into a Word document, saved under institution and week filenames, and uploaded to NVivo. The responses to the MfM questionnaire were analysed to identify participants who had improved or decreased by two or more Likert scale levels and these data and the MfM questionnaire were uploaded to NVivo. A preliminary pencil and paper coding was made using a random collection of ten percent of the interview data in order to gain an overview of the type of node filenames that might be required for NVivo broad coding purposes. The interview transcription data and diary data were carefully read and broadly coded into NVivo nodes. The items from the MfM questionnaire were also broadly coded and the participants' improved and/or decreased results were included taking into account reverse scoring. Each node was read in its entirety to gain an overview of the data story and a decision was made as to how these data might best be presented. It was possible to look at all instances of, for example, references to changes in self-perceived focus across musical context (i.e. across lessons, practice, rehearsals/ensembles, and performance). However, the majority of the data showed a cascading effect of mindfulness within context (e.g. one effect triggering the next), so it was decided to present the data more deeply and truthfully to the participants' experience in this way.

In order to explore the participants' responses more deeply, it was decided to combine use of NVivo with Excel. The NVivo for Mac application

did not allow for multiple coding of a text section (context) while also allowing individual code-related terminology highlighting (detail) within each node. Using Excel allowed for a more flexible, finer and more detailed analysis that could take place whilst keeping the data visible within a broader context in NVivo. Each node title was transferred to an Excel file title, (e.g. 'lessons/teacher'). The nodes were read closely again and new subcodes were titled on a master Excel worksheet (see Figure 4.3 for a hierarchical example of the organisation of Excel worksheets within the node "performance"). Titled individual Excel worksheet tabs were used for more detailed analysis of each subcode. The node was read again and finer data from each participant were transferred into the relevant worksheets under participant identity. As the data were transferred, further finer coding grew down the left side of the worksheet. The Excel worksheet was flipped by ninety degrees so that the data would read down the page. With constant reference back to the original transcripts, NVivo nodes, and occasionally the original recordings, data were transferred into dedicated Word files and subsequently ordered into groups for writing up under subheadings. The number of participants who provided data in each subheading was recorded to later represent prevalence. Subheadings were gathered under headings, which became themes. The data were referenced again to find good verbatim examples from participants to illustrate each theme, and outside research was included to provide literature-based context to accompany the findings. The data were then written up into the results detailed below.

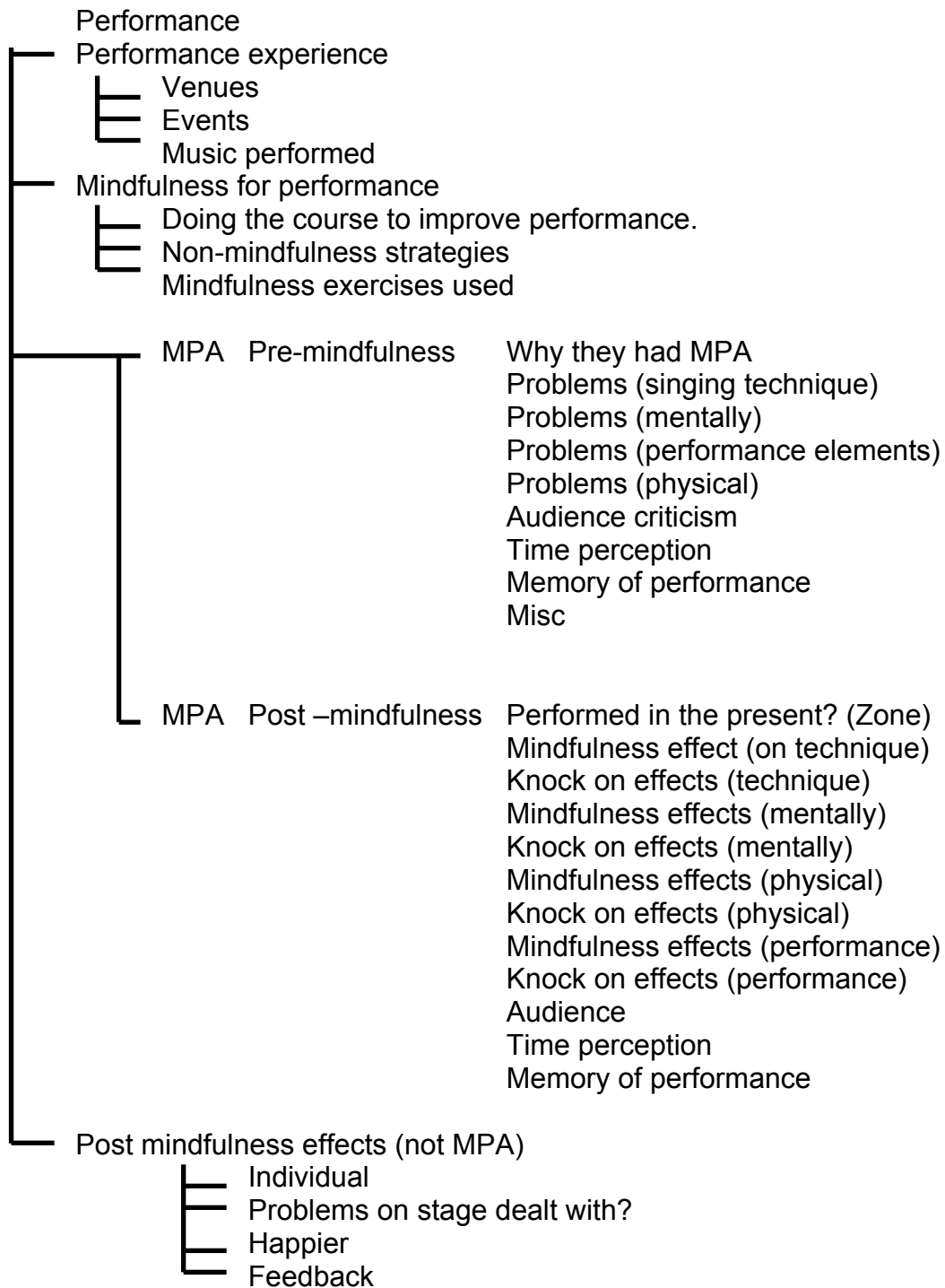


Figure 4.3 Hierarchical representation example of finer coding in Excel.

Chapter Five – Mindfulness for Singers: Quantitative results

This chapter reports the results from quantitative data for the Five Facet Mindfulness Questionnaire (FFMQ) and the Mindfulness for Musicians Questionnaire (MfM) (see Chapter 2, Section 2.3.2 for more information). Internal reliability analyses were run on the pre- and post-intervention data from the FFMQ and MfM results: Observe, Describe, Act with Awareness, Non-React, Non-Judge. Due to the small amount of participants, the tests were run on the combined data provided by the experimental participants, and the combined data of the control participants from both institutions (see Table 5.1). Cronbach alpha results for the FFMQ for both groups fall within similar levels as those reported in other studies, for example, Baer et al., (2006) (see Section 2.3.2, Table 5.1). The MfM, as would be expected with a questionnaire in development, has far less internal reliability. It also has far fewer items than the FFMQ, which increases the instability. There are two results of particular note. The experimental participant Non-Judge pre-intervention results of $\alpha=0.052$ are very low but they are much higher for the control group ($\alpha=0.462$). The negative results for the control group for Non-React post-intervention results are different to the positive results from the experimental group and provide partial evidence that the items for this group are not measuring the same facet. This suggests that these factors need further study and testing before being used for the general music student-wide community.

Subsequent tests on data collected from both institutions are recorded separately because the data were gathered using two methods, one controlled (UoL) and one randomly controlled (LCOM).

Table 5.1 *Reliability analyses results for the FFMQ and MfM both pre- and post-intervention for experimental and control participants at both institutions*

Experimental	Cronbach α	
Facets	FFMQ	MfM
Observe Pre	0.800	0.530
Observe Post	0.767	0.690
Describe Pre	0.841	0.507
Describe Post	0.926	0.639
Act with Awareness Pre	0.860	0.507
Act with Awareness Post	0.898	0.631
Non-React Pre	0.829	0.286
Non-React Post	0.673	0.498
Non-Judge Pre	0.882	0.052
Non-Judge Post	0.889	0.388

Controls	Cronbach α	
Facets	FFMQ	MfM
Observe Pre	0.652	0.460
Observe Post	0.783	0.438
Describe Pre	0.822	0.467
Describe Post	0.921	0.611
Act with Awareness Pre	0.863	0.047
Act with Awareness Post	0.835	0.245
Non-React Pre	0.736	0.587
Non-React Post	0.792	-0.677
Non-Judge Pre	0.811	0.462
Non-Judge Post	0.831	0.403

As there is currently debate about the validity of the Observe facet in the FFMQ for pre-intervention measure due to the fact that understanding of the statements may be lacking in naïve mindfulness participants (Rudkin, Medvedev, & Siegert, 2017) (see Chapter 2, Section 2.3.2), scores are displayed in this study as individual facets.

5.1 University questionnaire study

Tests were run for the FFMQ and MfM between the experimental and control participants to ascertain their situation at baseline. Tests were run for homogeneity of variance and all assumptions were met for the FFMQ and MfM group scores, except for the MfM Describe facet. A Mann-Whitney test was run for the MfM Describe facet and independent t-tests were run for the other facets (all tests were two-tailed, at 0.05 significance level). Results did not suggest any significant differences between the groups at baseline (see Table 5.2).

Table 5.2 *University FFMQ and MfM independent t-tests for experimental and control participants at baseline*

Facet	Condition	Baseline		
		t-test	Mean	(SD)
FFMQ Observe	Experimental	$t(26)=0.298, p=0.768$	28.59	3.91
	Control		28.18	2.82
FFMQ Describe	Experimental	$t(26)=2.022, p=0.054$	26.88	4.78
	Control		23.18	4.64
FFMQ Act with Awareness	Experimental	$t(26)=0.894, p=0.380$	23.59	5.30
	Control		21.91	4.04
FFMQ Non-React	Experimental	$t(26)=-0.155, p=0.878$	20.88	4.61
	Control		20.64	3.14
FFMQ Non-Judge	Experimental	$t(26)=-1.005, p=0.324$	22.35	6.30
	Control		24.64	5.10

Facet	Condition	Baseline		
		t-test	Mean	(SD)
MfM Observe	Experimental	$t(26)=0.285, p=0.778$	10.29	1.57
	Control		10.09	2.21
MfM Describe	Experimental	$U=132, p=0.730$	8.06	2.30
	Control		9.64	1.36
MfM Act with Awareness	Experimental	$t(26)=-0.169, p=0.867$	9.41	2.24
	Control		9.55	1.70
MfM Non-React	Experimental	$t(26)=-0.180, p=0.858$	8.94	1.92
	Control		9.09	2.47
MfM Non-Judge	Experimental	$t(26)=-1.576, p=0.127$	7.24	1.68
	Control		8.27	1.74

* = significant to $p<.05$

Tests were run on the pre- and post-intervention scores from the FFMQ and MfM questionnaires to ascertain if there were any differences within the groups. Results were normally distributed for the facets of Observe, Describe, Act with Awareness, Non-Judge, and Non-React in both experimental and control groups for the FFMQ and the MfM measures except for the pre-intervention Act with Awareness facet for the FFMQ test in the experimental group. The non-parametric Wilcoxon test was run on the pre-intervention Act with Awareness facet in the experimental group and paired t-tests were run for the other facets for both groups in both measures (see Table 5.3 and Table 5.4).

Table 5.3 *University FFMQ pre- and post-intervention results for experimental (EP) and control groups (C) using paired t-tests and Wilcoxon test*

University (EP)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
FFMQ Observe	28.59	3.90	31.35	3.16	$t(16)=-3.124, p=0.007^*$
FFMQ Describe	26.88	4.78	29.53	6.09	$t(16)=-2.619, p=0.019^*$
FFMQ Act with Awareness	23.59	5.30	25.06	5.68	$t(16)=-1.148, p=0.268$ $Z=-1.091, p=0.275$
FFMQ Non-React	20.88	4.60	22.94	3.32	$t(16)=-2.161, p=0.046^*$
FFMQ Non-Judge	22.35	6.30	25.17	5.98	$t(16)=-2.017, p=0.061$

University (C)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
FFMQ Observe	28.18	2.82	28.55	3.07	$t(10)=-0.415, p=0.687$
FFMQ Describe	23.18	4.64	25.73	6.06	$t(10)=-1.347, p=0.208$
FFMQ Act with Awareness	21.91	4.03	21.64	4.00	$t(10)=0.157, p=0.878$
FFMQ Non-React	20.64	3.13	19.82	4.14	$t(10)=0.785, p=0.451$
FFMQ Non-Judge	24.64	5.10	24.00	4.14	$t(10)=0.432, p=0.675$

* = significant to $p < .05$

As can be seen from Table 5.3, there was a statistically significant improvement between the pre- and post-intervention scores for the experimental group in the facets of Observe, Describe, and Non-React for the FFMQ. There was no statistical change between the pre- and post-intervention period for the control group. However, as the control group was somewhat smaller than the experimental group, this may not be as significant as it first appears.

Table 5.4 *University MfM pre- and post-intervention results for experimental (EP) and control (C) groups utilising paired t-tests*

University (EP)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
MfM Observe	10.29	1.57	10.71	1.89	$t(16)=-0.941, p=0.361$
MfM Describe	8.06	2.30	10.18	2.18	$t(16)=-4.854, p=0.001^*$
MfM Act with Awareness	9.41	2.23	9.53	2.29	$t(16)=-0.180, p=0.859$
MfM Non-React	8.94	1.91	10.35	2.02	$t(16)=-2.669, p=0.017^*$
MfM Non-Judge	7.24	1.67	8.65	2.52	$t(16)=-2.742, p=0.014^*$

University (C)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
MfM Observe	10.09	2.21	10.00	1.90	$t(10)=0.1, p=0.922$
MfM Describe	9.64	1.36	9.64	2.34	$t(10)=-0.001, p=1.00$
MfM Act with Awareness	9.55	1.70	8.64	2.01	$t(10)=0.969, p=0.356$
MfM Non-React	9.09	2.47	9.00	0.34	$t(10)=0.142, p=0.89$
MfM Non-Judge	8.27	1.74	8.27	1.68	$t(10)=0.001, p=1.00$

* = significant to $p < .05$

As can be seen from Table 5.4 there are significant results for the experimental participants in the post-intervention facets of Describe, Non-React, and Non-Judge for the MfM questionnaire in comparison to their pre-intervention scores. There were no significant differences between the pre- and post-intervention period for the controls. However, with the control group having a smaller number of participants than the experimental group, this may have consequences for the interpretation of these results in comparing the two groups by suggesting that the difference between them is not as obvious as it might appear.

5.2 Conservatoire questionnaire study

There were sufficient participants who enrolled at the conservatoire to run a randomised controlled trial and both the experimental group and the wait-list group were more evenly matched in sample size, which should give the results more statistical power than those reported in the UoL section of this study.

The wait-list control group completed their first questionnaires (WLC1) in November 2016 and did their second questionnaires (WLC2) in January 2017. The experimental participants also took their pre-intervention questionnaires (EP1) in January 2017. At this point, both experimental and wait-list participants took part in the intervention (Jan-March 2017), so the wait-list group therefore became renamed wait-list experimental (WLE) participants. In March, experimental and WLE participants completed the questionnaires again as part of a reflective exercise in Week 8 of the MfS course (EP2, WLE). This meant that the wait-list group produced data at three time points rather than two.

It was decided not to ignore the extra data provided by this group, so analysis was done in three ways. See Figure 5.1 for a visual representation.

1. Analysis has been performed comparing the EP participants' pre- (EP1) and post-intervention (EP2) FFMQ and MfM questionnaire results.
2. Analysis was performed for the wait-list controls between their November 2016 (WLC1) and January 2017 (WLC2) pre-intervention score results for the FFMQ and the MfM.

3. The wait-list controls second pre-intervention scores taken in January 2017 (WLC2) and their post-intervention scores completed in March 2017 (WLE) were combined with the EP1 and EP2 scores and analysis was performed on FFMQ and MfM questionnaire results provided by participants pre- and post-intervention.

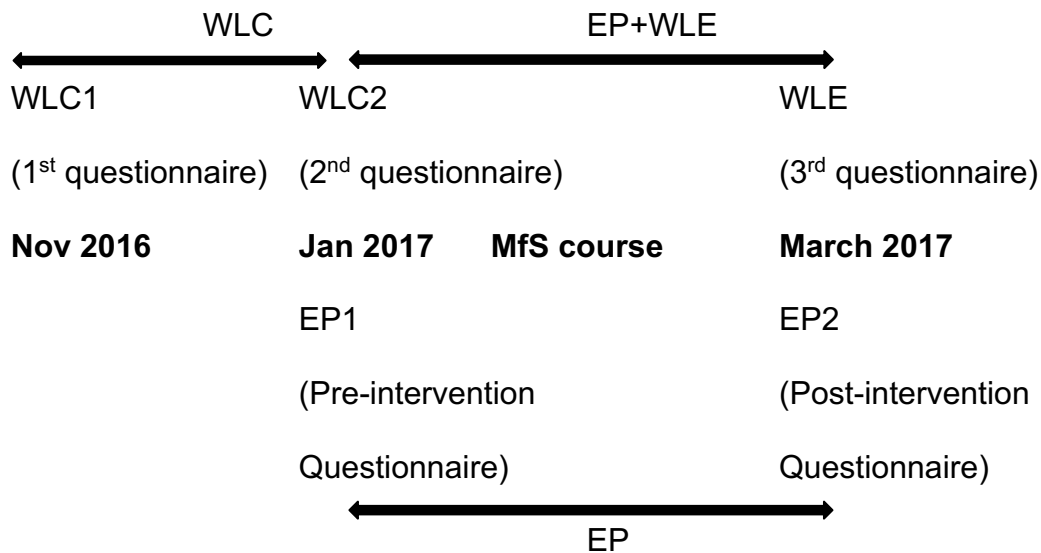


Figure 5.1 MfS experimental and Wait-list control participant analysis.

5.2.1 Baseline tests for the FFMQ and MfM for conservatoire participants.

Independent t-tests were run to assess baseline scores for all the participants. Tests were run for homogeneity of variance and all assumptions were met for the FFMQ and MfM in all conditions. The results are reported for the FFMQ in Table 5.5 and for the MfM in Table 5.6. None of the baseline score differences between groups were significant.

Table 5.5 *Conservatoire FFMQ independent t-tests for experimental and control participants at baseline*

Facet	Condition	Pre		
		t-test	Mean	(SD)
FFMQ Observe	EP	$t(22)=-1.501, p=0.147$	25.17	6.67
	WLC		28.83	5.20
FFMQ Describe	EP	$t(22)=0.069, p=0.945$	23.33	5.61
	WLC		23.17	6.15
FFMQ Act with Awareness	EP	$t(22)=-0.516, p=0.611$	20.08	6.63
	WLC		21.50	6.82
FFMQ Non-React	EP	$t(22)=0.602, p=0.554$	18.83	4.67
	WLC		17.75	4.14
FFMQ Non-Judge	EP	$t(22)=0.096, p=0.924$	21.75	6.84
	WLC		21.50	5.82

Facet	Condition	Pre		
		t-test	Mean	(SD)
FFMQ Observe	EP+WLE	$t(31)=-0.95, p=0.350$	26.81	6.23
	WLC		28.83	5.20
FFMQ Describe	EP+WLE	$t(31)=0.036, p=0.971$	23.10	4.96
	WLC		23.17	6.15
FFMQ Act with Awareness	EP+WLE	$t(31)=-0.576, p=0.569$	20.14	6.34
	WLC		21.50	6.82
FFMQ Non-React	EP+WLE	$t(31)=0.315, p=0.755$	18.24	4.37
	WLC		17.75	4.14
FFMQ Non-Judge	EP+WLE	$t(31)=-0.305, p=0.763$	20.81	6.49
	WLC		21.50	5.82

* = significant to
 $p < .05$

Table 5.6 *Conservatoire MfM independent t-tests for experimental and control participants at baseline*

Facet	Condition	Pre		
		t-test	Mean	(SD)
MfM Observe	EP	$t(22)=-0.748, p=0.462$	9.50	3.23
	WLC		10.33	2.10
MfM Describe	EP	$t(22)=1.12, p=0.275$	9.42	2.23
	WLC		8.33	2.50
MfM Act with Awareness	EP	$t(22)=-0.563, p=0.579$	8.50	2.88
	WLC		9.08	2.15
MfM Non-React	EP	$t(22)=-0.459, p=0.651$	8.33	2.10
	WLC		8.75	2.34
MfM Non-Judge	EP	$t(22)=0.801, p=0.431$	7.42	1.56
	WLC		6.67	2.84

Facet	Condition	Pre		
		t-test	Mean	(SD)
MfM Observe	EP+WLE	$t(31)=-0.902, p=0.374$	9.48	2.87
	WLC		10.33	2.10
MfM Describe	EP+WLE	$t(31)=0.443, p=0.661$	8.71	2.31
	WLC		8.33	2.50
MfM Act with Awareness	EP+WLE	$t(31)=-0.527, p=0.602$	8.62	2.58
	WLC		9.08	2.15
MfM Non-React	EP+WLE	$t(31)=-0.251, p=0.803$	8.57	1.72
	WLC		8.75	2.34
MfM Non-Judge	EP+WLE	$t(31)=1.219, p=0.232$	7.67	1.88
	WLC		6.67	2.84

* = significant to $p < .05$

5.2.2 Five Facet Mindfulness Questionnaire results for conservatoire participants.

In preparation for analysing the within-group pre- and post-intervention data for the participants, tests for normality and homogeneity of variance were run for the FFMQ. Results were normally distributed for all groups and paired t-tests were performed (see Table 5.7).

Table 5.7 *Conservatoire FFMQ pre- and post-intervention results for experimental (EP) and experimental and wait-list experimental (EP+WLE) and wait-list control (WLC) groups using paired t-tests*

Conservatoire (EP)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
FFMQ Observe	25.17	6.67	29.50	5.13	$t(11)=-3.625, p=0.004^*$
FFMQ Describe	23.33	5.61	28.33	6.65	$t(11)=-3.191, p=0.009^*$
FFMQ Act with Awareness	20.08	6.63	23.33	5.11	$t(11)=-2.263, p=0.045^*$
FFMQ Non-React	18.83	4.67	22.17	3.30	$t(11)=-2.677, p=0.022^*$
FFMQ Non-Judge	21.75	6.84	26.58	6.16	$t(11)=-2.667, p=0.022^*$

Conservatoire (EP&WLE)	Pre		Post		
Facets	Mean	(SD)	Mean	(SD)	t-test
FFMQ Observe	26.81	6.23	30.90	4.86	$t(20)=-5.187, p=0.001^*$
FFMQ Describe	23.10	4.96	28.05	5.27	$t(20)=-5.241, p=0.001^*$
FFMQ Act with Awareness	20.14	6.34	24.81	5.04	$t(20)=-4.318, p=0.001^*$
FFMQ Non-React	18.24	4.37	21.95	3.44	$t(20)=-4.102, p=0.001^*$
FFMQ Non-Judge	20.81	6.49	26.67	6.16	$t(20)=-4.692, p=0.001^*$

Conservatoire (WLC)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
FFMQ Observe	28.83	5.20	27.67	5.26	$t(11)=1.011, p=0.334$
FFMQ Describe	23.17	6.15	21.50	6.65	$t(11)=1.715, p=0.114$
FFMQ Act with Awareness	21.50	6.82	20.17	6.16	$t(11)=1.087, p=0.300$
FFMQ Non-React	17.75	4.14	17.42	3.78	$t(11)=0.298, p=0.771$
FFMQ Non-Judge	21.50	5.82	20.08	5.58	$t(11)=0.961, p=0.357$

* = significant to $p < .05$

As can be seen in Table 5.7, there are significant differences between pre- and post-intervention results for all facets in the FFMQ for the EP participants. This can be seen in comparison with the WLC group who demonstrated no significant improvement in scores over this time scale. There are also highly significant results for the EP+WLE groups between pre- and post-intervention scores in comparison with the pre-intervention WLC group scores from before and after a similar 8-week time length.

In order to compare post-intervention differences between the three groups (wait-list controls (WLC), experimental participants (EP), and wait-list controls that became experimental participants (WLE)) in the conservatoire study, one-way ANOVA tests were performed for each facet of the FFMQ (see Appendix AZ for graphic plots). Assumption tests were run for each group and all assumptions were met for all facets except for the Describe facet and the Act with Awareness facet. One-way ANOVA tests, therefore, were run on the Observe, Non-Judge and Non-React facets, and Kruskal-Wallis tests were run on the Describe and Act with Awareness facets. All results are reported in Table 5.8.

Table 5.8 *FFMQ post-intervention change score one-way ANOVA and Kruskal-Wallis test results for the Conservatoire participants*

FFMQ Facets	Group	Means	(SD)	ANOVA results
Observe				$F(2,27)=6.937, p=0.004^*$
	WLC	-1.22	3.35	
	EP	4.33	4.14	
	WLE	3.78	2.99	
Describe				$H(2)=13.358, p=0.01^*$
	WLC	-1.89	2.93	
	EP	4.92	5.43	
	WLE	4.89	2.52	
Act with Awareness				$H(2)=9.493, p=0.009^*$
	WLC	-1.67	4.5	
	EP	3.25	4.97	
	WLE	5.56	4.5	
Non-React				$F(2,27)=2.061, p=0.147$
	WLC	0.56	3.5	
	EP	3.33	4.31	
	WLE	4.22	4.11	
Non-Judge				$F(2,27)=7.341, p=0.003^*$
	WLC	-2.33	5.07	
	EP	4.83	6.28	
	WLE	7.22	4.89	

* = significant to $p < .05$

Results in Table 5.8 show statistical differences between the groups for the following facets: Observe, Describe, Act with Awareness, and Non-Judge. To investigate group differences, Tukey post-hoc tests were performed on the Observe and Non-Judge facets. Independent-samples Kruskal-Wallis tests were run for the Describe and Act with Awareness facet.

Tukey pairwise comparisons for Observe showed that there were no significant differences between EP and WLE groups at post-test ($p=0.935$). The EP, however, demonstrated significantly higher post-scores than the WLC

($p=0.05$). The WLE also demonstrated significantly higher post-scores than the WLC ($p=0.017$).

Pairwise comparisons for the Describe Independent-Sample Kruskal-Wallis test demonstrated that there were no significant differences at post-test between the EP and WLE ($p=0.698$). However, there were significantly higher post-test scores for the EP in comparison with the WLC ($p=0.005$). There were also significantly higher scores for the WLE in comparison with WLC ($p=0.003$).

Pairwise comparisons for the Act with Awareness Independent-Sample Kruskal-Wallis test demonstrated no significant differences between the WLC and the EP ($p=0.129$) or between the EP and the WLE group ($p=0.654$). However, there was a significant improvement in post-scores for the WLE in comparison with WLC ($p=0.007$).

Pairwise comparisons for the facet of Non-Judge using Tukey post-hoc tests showed no differences between the EP and WLE ($p=0.598$). However, there were significantly higher scores at post-test for EP in comparison with WLC ($p=0.018$). There were also significantly higher scores at post-test for the WLE in comparison to WLC ($p=0.003$).

5.2.3 Mindfulness for Musicians results for conservatoire participants.

In tests for homogeneity of variance in the MfM, experimental group (EP) results were not normally distributed for the post-intervention Non-Judge facet. Therefore, the non-parametric Wilcoxon test was run on the Non-Judge facet for the EP MfM post-intervention. Results were normally distributed for the other facets in all conditions and paired t-tests were run for the MfM EP+WLE group and for the MfM WLC group. Results are reported below in Table 5.9.

Table 5.9 *Conservatoire MfM pre- and post-intervention results for experimental (EP) and experimental and wait-list experimental (EP+WLE) and wait-list control (WLC) groups using paired t-tests and Wilcoxon tests*

Conservatoire (EP)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
MfM Observe	9.50	3.23	11.25	2.56	$t(11)=-2.782, p=0.018^*$
MfM Describe	9.42	2.23	9.92	2.35	$t(11)=-0.804, p=0.438$
MfM Act with Awareness	8.50	2.88	9.83	1.64	$t(11)=-1.627, p=0.132$
MfM Non-React	8.33	2.10	9.58	1.98	$t(11)=-2.322, p=0.04^*$
MfM Non-Judge	7.42	1.56	7.75	1.49	$Z=-0.362, p=0.717$

Conservatoire (EP&WLE)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
MfM Observe	9.48	2.87	10.95	2.27	$t(20)=-3.277, p=0.004^*$
MfM Describe	8.71	2.31	9.90	2.32	$t(20)=-2.583, p=0.018^*$
MfM Act with Awareness	8.62	2.58	9.86	1.77	$t(20)=-2.227, p=0.038^*$
MfM Non-React	8.57	1.72	9.95	1.99	$t(20)=-3.360, p=0.003^*$
MfM Non-Judge	7.67	1.88	8.24	1.76	$t(20)=-1.351, p=0.192$

Conservatoire (WLC)	Pre		Post		
Facet	Mean	(SD)	Mean	(SD)	t-test
MfM Observe	10.33	2.10	9.50	2.15	$t(11)=1.603, p=0.137$
MfM Describe	8.33	2.50	8.00	1.91	$t(11)=0.462, p=0.653$
MfM Act with Awareness	9.08	2.15	8.83	2.08	$t(11)=0.761, p=0.463$
MfM Non-React	8.75	2.34	8.57	1.29	$t(11)=0.000, p=1.000$
MfM Non-Judge	6.67	2.84	7.75	2.14	$t(11)=-1.569, p=0.145$

* = significant to $p < .05$

In the MfM, significant results were reported in the facets of Observe and Non-React for the EP group between pre- and post-intervention scores. The WLC over a similar 8-week period showed no significant score increases. However, when EP+WLE groups were combined, there were significant results from pre- to post-intervention in all facets except for Non-Judge.

In order to compare differences between the three groups in the conservatoire study, (wait-list controls (WLC), experimental participants (EP), and wait-list controls that became experimental participants (WLE), one-way ANOVA assumption tests were performed for each facet of the MfM. Assumptions were met for all facets except for Act with Awareness (homogeneity of variance). The non-parametric Kruskal-Wallis test was run on the facet Act with Awareness and one-way ANOVA tests were run on the other facets. The results are reported in Table 5.10 (see Appendix AZ for graphic plots).

Table 5.10 *MfM post-intervention change score one-way ANOVA and Kruskal-Wallis test results for the Conservatoire participants*

MfM Facets	Group	Means	(SD)	ANOVA results
Observe				$F(2,27)=4.860, p<0.016^*$
	WLC	-1.00	1.94	
	EP	1.75	2.18	
	WLE	1.11	1.96	
Describe				$F(2,27)=5.850, p<0.008^*$
	WLC	-1.22	2.22	
	EP	0.50	2.15	
	WLE	2.11	1.76	
Act with Awareness				$H(2)=1.775, p=0.412$
	WLC	-0.22	1.30	
	EP	1.33	2.84	
	WLE	1.11	2.26	
Non-React				$F(2,27)=2.604, p<0.092$
	WLC	-0.33	1.87	
	EP	1.25	1.86	
	WLE	1.56	2.01	
Non-Judge				$F(2,27)=0.191, p<0.827$
	WLC	0.78	2.68	
	EP	0.33	1.92	
	WLE	0.63	2.14	

* = significant to $p<.05$

Results showed a statistical difference between the groups for the following facets: Observe, and Describe. To investigate group differences, Tukey post-hoc tests were performed on these facets.

Tukey HSD pairwise comparisons for the MfM Observe showed that there were no significant differences between post-scores of the WLC and WLE ($p=0.092$). There were also no significant differences between the post-scores of the EP and the WLE ($p=0.761$). However, there were significant higher results for the EP post-scores than the WLC ($p=0.014$).

Pairwise comparisons for the MfM Describe facet Tukey HSD test demonstrated no significant post-score differences between the WLC and EP ($p=0.161$) or between the WLE and EP ($p=0.200$). However, there were significant improvements at post-test in comparison between the WLE and WLC ($p=0.006$).

5.3 Comparisons

The data in the pilot study (Czajkowski, 2013) were gathered using a quasi-experimental pre- and post-intervention design using the FFMQ, which found significant improvements in mindfulness over the MfS course in the facets of Non-React and Non-Judge. This is different to the present study, which found positive improvements in levels of mindfulness as measured by the FFMQ in the facets of Observe, Describe and Non-React for the university experimental cohort and in all facets for the conservatoire experimental groups. There were also differences between baseline means of students at the institutions. Further tables explore the different starting points for the two institutions for comparison (for the FFMQ see Table 5.11 and for the MfM, see Table 5.12). Although there are mainly non-significant results suggesting that the participants at both institutions were starting from a similar position as regards mindfulness, there is one significant result for the FFMQ Describe facet and some results close to significance for the Act with Awareness and Non-React facets between the conservatoire EP/WLE (CEP/WLE) and the university EP (UEP) groups. This would suggest that, as regards general mindfulness, the participants in the conservatoire group were slightly lower in their starting levels of mindfulness than the university cohort.

Tests were run for homogeneity of variance and all assumptions were met for the FFMQ and MfM results, except for the FFMQ Describe facet within the CEP/WLE and UEP group, the FFMQ Observe facet within the CEP and UEP group, and in the MfM Non-Judge facet within the CEP/WLE and UEP group.

Table 5.11 *Baseline measure comparison between the FFMQ pre-intervention condition of the university experimental participants (UEP), and the conservatoire experimental (CEP) and wait-list experimental participants (WLE) using independent t-tests and Mann-Whitney tests*

FFMQ	Facet	Condition	Mean	(SD)	t-test
Pre	Observe	CEP+WLE	26.81	6.23	$t(36)=-1.024, p=0.313$
		UEP	28.59	3.91	
	Describe	CEP+WLE	23.10	4.96	$U=251.5, p=0.031^{*\wedge}$
		UEP	26.88	4.78	
	Act with Awareness	CEP+WLE	20.14	6.33	$t(36)=-1.79, p=0.082$
		UEP	23.59	5.30	
	Non-React	CEP+WLE	18.24	4.37	$t(36)=-1.81, p=0.079$
		UEP	20.88	4.61	
	Non-Judge	CEP+WLE	20.81	6.49	$t(36)=-0.738, p=0.465$
		UEP	22.35	6.30	
Pre	Observe	CEP	25.17	6.67	$U=142, p=0.080^\wedge$
		UEP	28.59	3.91	
	Describe	CEP	23.33	5.61	$t(27)=-1.832, p=0.078$
		UEP	26.88	4.78	
	Act with Awareness	CEP	20.08	6.63	$t(27)=-1.581, p=0.125$
		UEP	23.59	5.30	
	Non-React	CEP	18.83	4.67	$t(27)=-1.173, p=0.251$
		UEP	20.88	4.61	
	Non-Judge	CEP	21.75	6.84	$t(27)=-0.245, p=0.808$
		UEP	22.35	6.30	

* = significant to $p < .05$

\wedge = homogeneity of variance not assumed.

Table 5.12 *Baseline measure comparison between the MfM pre-intervention condition of the university experimental participants (UEP), and the conservatoire experimental (CEP) and wait-list experimental participants (WLE) using independent t-tests and Mann-Whitney tests*

MfM	Facet	Condition	Mean	(SD)	t-test
Pre	Observe	CEP+WLE	9.48	2.87	$t(36)=-1.051, p=0.3$
		UEP	10.29	1.57	
	Describe	CEP+WLE	8.71	2.31	$t(34.8)=0.872, p=0.389$
		UEP	8.06	2.30	
	Act with Awareness	CEP+WLE	8.62	2.58	$t(36)=-0.999, p=0.325$
		UEP	9.41	2.24	
	Non-React	CEP+WLE	8.57	1.72	$t(36)=-0.626, p=0.535$
		UEP	8.94	1.92	
	Non-Judge	CEP+WLE	7.67	1.88	$U=159, p=0.581^{\wedge}$
		UEP	7.24	1.68	
Pre	Observe	CEP	9.50	3.23	$t(27)=-0.88, p=0.386$
		UEP	10.29	1.57	
	Describe	CEP	9.42	2.23	$t(27)=1.582, p=0.125$
		UEP	8.06	2.30	
	Act with Awareness	CEP	8.50	2.88	$t(27)=-0.961, p=0.345$
		UEP	9.41	2.24	
	Non-React	CEP	8.33	2.10	$t(27)=-0.808, p=0.426$
		UEP	8.94	1.92	
	Non-Judge	CEP	7.42	1.56	$t(27)=0.295, p=0.771$
		UEP	7.24	1.68	

* = significant to $p < .05$

\wedge = homogeneity of variance not assumed

Chapter Six – Mindfulness for Singers qualitative results:

General overview

6.1 Introduction

According to the results from the FFMQ and MfM questionnaires reported in Chapter 5, the MfS course improved mindfulness levels of both university and conservatoire experimental cohorts in comparison to controls. In order to find what qualitative effect these mindfulness improvements had on student and teacher participants, data were gathered through interviews, diaries, and comparison of individual student participants' pre- and post-intervention MfM responses. These data were subsequently analysed (see Chapter 4, Section 4.3).

The qualitative results from the MfS study are presented in Chapters 6 to 10: Chapter 6 details the experience of doing the mindfulness course and its effects on the student participants in general life; Chapter 7 presents the effects of learning mindfulness in singing lessons; Chapter 8 details the effects in solo and group practice sessions; the effects of learning mindfulness on performance can be found in Chapter 9; and Chapter 10 presents the MfS study summary. Figure 6.1 provides a visual navigational overview of the chapters in the MfS study.

Throughout the next five qualitative results chapters, participants are designated by type as either being from the university cohort (U) or from the conservatoire group (C). Data were also taken from self-report diaries designated as either U Diaries (from the university cohort), or C Diaries (conservatoire group), followed by the number of the week in which the diary

entry was made. As a replication study, there is appropriate reference to the pilot study (Czajkowski, 2013) throughout.

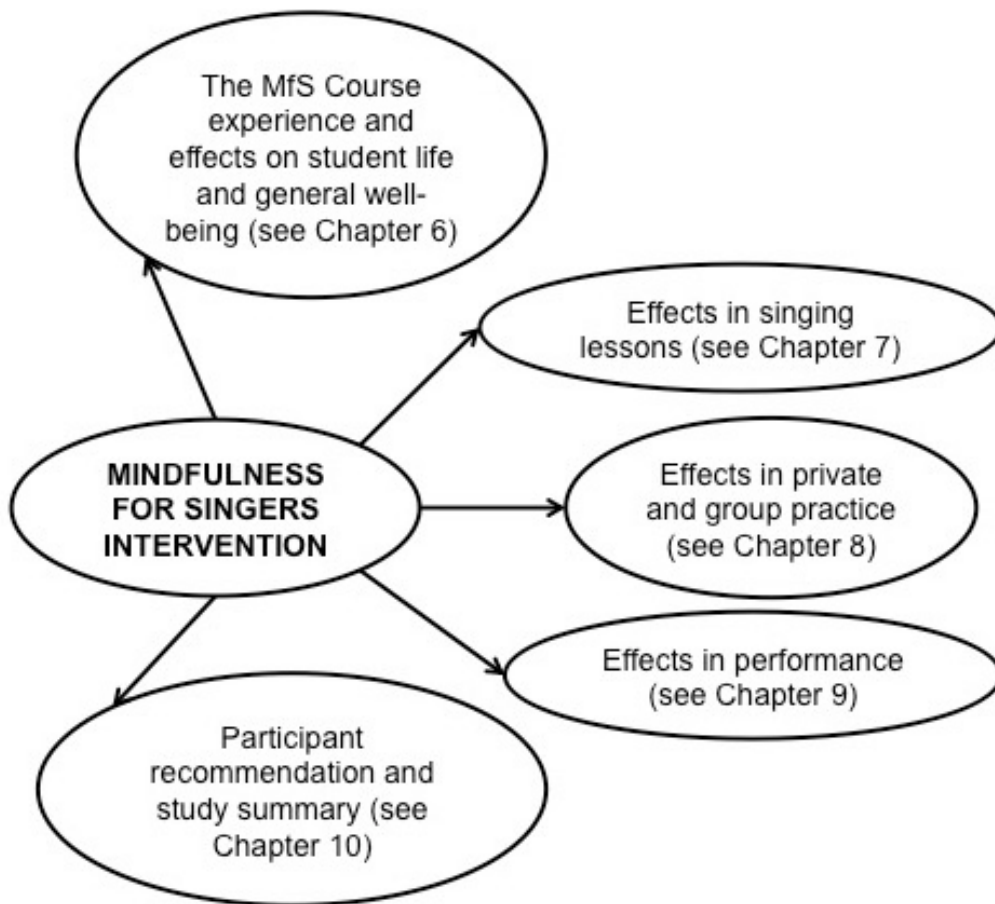


Figure 6.1 Navigational overview of the MfS results chapters.

6.2 The Mindfulness for Singers course experience

The participants provided data about the MfS course and its effects on their general lives as students. They talked about why they decided to do a mindfulness course, the experience of doing the course, the experience of practicing mindfulness and problems they encountered (see Figure 6.2).

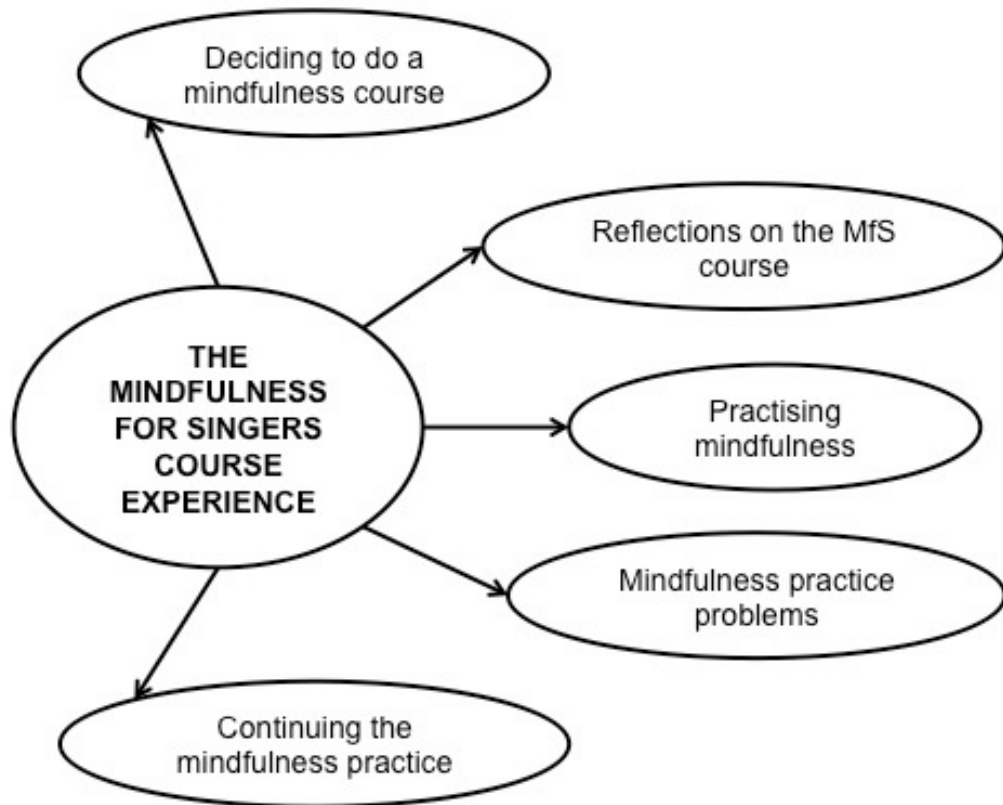


Figure 6.2 Thematic overview of the MfS course experience.

6.2.1 Deciding to do a mindfulness course

Participants volunteered reasons for doing a mindfulness course for singers. Similarly to Czajkowski (2013), most participants had never done mindfulness before, some had done it once or “bits” of mindfulness type experiences (U5, U9, C13, C15, C18) and some were experienced meditators (C2, U15). Participants had read about it (C11) or been introduced by a family member (C10, C13, C17, U15). The reasons they gave for choosing to take part varied between simple interest in the concept, hope for improvement both musically and personally, and help for specific problems, such as music performance anxiety. Results are tabled below (see Table 6.1).

Table 6.1 *Reasons participants gave for taking the MfS course*

Reasons for taking the MfS Course	Participants
Self-exploratory	U1, U9, U14, U16, U17, C1, C3, C6, C7
General anxiety	U10, U14, C1, C19, C21, C4, C9
Personal well-being improvement	U2, U14, C1, C7
Improve concentration or reduce distraction	U3, U7, U8, C4, C7
Improve mindfulness skills and/or develop a mindfulness routine	U5, C2, C4, C6
Course addressed to helping singers	U2, U7, U9, U12, U17, C1, C11, C17, C5, C7
Performance anxiety	U1, U7, U8, U13, U14, U15, C1, C6, C7, C12, C21
Performance in general	U7, U16, U9, C7
Might be useful in my career	C1, C7
Just interested/how it works	U12, U16, U17, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C2, C3, C5, C8

6.2.2 Reflections on the MfS course

As described in detail in Chapter 4 (Section 4.2.5.2), participants were taught focused attention, open monitoring, and compassion-based mindfulness practical exercises combined with facilitator-led research-based psychoeducation, and mindful inquiry group discussions.

Participants liked the 8-week course format (U2, U3, U5, U6, U10, U16, C14, C18, C19) and eleven participants wanted it to go on longer or did not want the course to end (U3, U6, U7, U8, U11, U13, C1, C4, C10, C13, C16). They felt that once a week was good (U1, U9, U16, C3, C11) and they appreciated the regularity, which helped keep them on track and to keep

practising (U2, U9, C1, C3, C5, C7, C9, C11). They liked the timing of the once-weekly sessions (U1, U9, U16, C3, C11).

Session lengths in the MBSR and MBCT are usually 2 to 2.5 hours in length but with a non-clinical demographic, and consideration of the participants' timetables and institution room constraints, it was decided that sessions should be an hour in length. Twenty-eight participants found the hour was a good length of time but four participants would have preferred longer sessions (U13, C1, C10, C12).

Participants felt that the course was a good, effective starting point on their mindfulness journey (U4, U8, U17, C4, C16), they thought that they understood the purpose, it was interesting, and covered the necessary essentials (U5, U8, U14, C5, C6). Fourteen participants volunteered the information that they enjoyed the course (U1, U7, U17, C1, C2, C3, C4, C8, C9, C12, C13, C15, C19, C21).

The MfS course had a group limit of 10 due to room constraints and facilities required and participants said that they liked the group format (U1, U4, U5, U6, U7, U8, U9, U14, U15). They said that it was good to become friends with other singers in their institutions with whom they would not normally have come into contact (U2, U3, U7, C11). They said that they enjoyed listening to, and learning from sharing experiences (U4, U8, U15, C11). They felt less alone in their anxiety (U7, U15, C16) and became aware that "everyone is in the same boat" (C16).

Class attendance was satisfactory on the whole (see Table 6.2). Studies assessing MBSR often exclude data from participants who attend fewer than 6 classes, however those in this study who reported dedicated

practice through missed weeks, and caught up using email communication, were keen to take part in the study and their data were included.

Table 6.2 *MfS student participant attendance record*

Class attendance	Participants
8 sessions	U1, U2, U3, U6, U7, U8, U10, U11, U12, U17, C1, C10, C13, C14, C20
7 sessions	U4, U5, U14, U16, C2, C5, C11, C12, C16, C18, C21
6 sessions	U9, U13, U15, C3, C4, C7, C15, C17, C19
5 sessions	C9
4 sessions	C6, C8

6.2.3 Mindfulness practice

In each session, participants were given a 10-minute formal mindfulness exercise and informal practices to practise during the week (see Section 4.2.5.2). This gave participants chance to experience formal and informal mindfulness throughout each week in a targeted (for singing purposes) and general manner. A schedule of the practice requirements can be found in Appendix AJ.

All the formal practices had dedicated MP3 tracks available on the accompanying website (www.mindfulnessforsingers.co.uk) to listen to or download. A lot of participants used these tracks to help them practise and described them as helpful (U1, U2, U3, U6, U7, U11, U14, U17, C2, C5, C11, C13, C19, C20). Voices used for recorded guided meditation can have an impact on the listener and were occasionally mentioned in interview as being liked (U2, U6, U10, U11, U12, U17, C5, C11, C16, C20) or not liked (U15, C15). Some participants preferred to work without the MP3 (U5, U16), and some started by using the tracks but soon abandoned them once they knew what to do (U10, C16, C20).

Participants were also asked to keep a daily journal, noting down minutes of practice and any findings. A limitation of the study is that not all participants adhered to the journal requirements and so it is difficult to assess participants' average practice time accurately. U1, U9 and U11, however, liked the journals, which they said helped them keep focus during the week.

Participants sometimes compared the formal and informal practices. Most found the informal practices easier or quicker to do (U1, U10, U13, U15, U16, C2, C4, C6, C7, C9, C12, C13, C14, C16, C17, C18, C19, C21) as they could be done anywhere (C7) or more often (C12). However, several discovered that the formal exercises were easier to do than the informal ones (U2, U5, U12, U14, C3, C5, C12, C16) because they were guided and time was dedicated to the practice.

Participants also wanted to inform the researcher of their favourite exercises. Unlike Czajkowski (2013), where the most popular mindfulness exercise was Mindful Movement, the Body Scan was most popular in this study (U1, U6, U7, U10, C9, C11, C14, C21, U Diary 6, C Diary 7) followed by the Breathing Counting (U1, U9, U10, C11, C16, U Diary 3), which U10 found particularly helped with her panic attacks. An anonymous participant in U Diary 2 reported that spending 2 mindful minutes on the toilet resulted in "unexpected pleasure!"

6.2.4 Mindfulness practice problems

Normally participants are requested to engage in 45 minutes or more of mindfulness practice a day when taking part in a traditional MBSR or MBCT course, but it is not categorically known how much effect mindfulness practice has on developing mindfulness or what is the optimum “dosage” (Berghoff, Wheeless, Ritzert, Wooley, & Forsyth, 2017; Manuel, Somohano & Bowen, 2016). It is understood in music education that length and quality of practice can have significant effects on music skills (Chaffin & Lemieux, 2004) and a clinical based RCT found that mindfulness practice is associated with improvements in clinical populations with regards to relapse from depression (Crane et al., 2014). Berghoff et al. (2017), however, compared 10-minutes with 20-minutes mindfulness practice over two weeks using a sample of non-clinical undergraduate students similar to those in the current MfS study. They found that both groups demonstrated an increase in mindfulness and reductions in stress, with slightly higher increases for the 20-minutes group in self-compassion. Berghoff et al. (2017) concluded that the results did not support giving lengthy meditation practice for MBI. As a result, to be in keeping with the original course but also considering that students are busy people, a daily practice of 10 minutes was suggested. However, although most participants seemed to do regular practice, they, like other musician participants in Czajkowski (2013) and Hribar (2012), reported finding it hard to find even 10 minutes a day (U3, U4, U5, U8, U10, U11, C1, C3, C8, C9, C12, C13, C14, C20, C21, U Diary 1, C Diary 4, and 7). Some participants reported doing more than the required 10 minutes (U1, C1, C2, C8) up to 30 minutes a

day (C10). C10 was the only participant to mention that doing this amount of mindfulness could give her a problem and she clarified why.

I can be a bit, 'Woowoowoowoowo,' so usually it brings me down a bit, which is really good. But a couple of times it's made me slightly depressed. It's really weird. It's kind of taken me so far down that I wake up and I'm like, 'Oh,' weirdly. In a weird, strange mood. So that's a bit funny. But in general I think it's quite good because it kind of levels my being here a bit more.

Feeling depressed after meditating is a condition that has been reported in the literature. Cebolla, Demarzo, Martins, Soler, and Garcia-Campaya, (2017) in a study searching for the unwanted effects of meditation practice with a non-clinical sample of mainly women from Spain (n=342) where 87 also reported unwanted effects such as boredom, occasional mental confusion, and temporary depression. In that study, unwanted effects were more likely to appear in those who did focused awareness individual practice for more than 20 minutes, and were mostly transitory without need for discontinuation, or medical attention. Unwanted effects are well known in the Buddhist literature but are only recently being studied in western cognitive research (Lindahl, Fisher, Cooper, Rosen, & Britton, 2017), and the current suggestion is to take medical advice before doing a mindfulness course if one has been clinically diagnosed with mental health problems (NIH, 2006). That the MfS Course was not a therapy or a clinical intervention was made very clear to the participants in the introductory sessions and it was advised that those who knew that they had clinical diagnoses should seek approval from their medical advisors before taking part. Counselling services at both institutions were informed about the MfS course in case participants had problems and participants were informed about the counselling services.

Participants sometimes said that they found it hard to remember to do the practice (U5, U7, U8, U10, U11, U13, C5, C7, C11, C21, C Diary 1, and 7) and U7, U13 and C21 put a reminder on their phones. U9 and C4 felt that having time purely to themselves made them feel a little guilty and almost self-indulgent, and others reported their own mental resistance to doing mindfulness practice at home (U5, U8, U9, C4, C15, C17, U Diary 2, and 3).

Many participants mentioned feeling distracted during practice but this is to be expected as the point of doing focused attention exercises is to train the “monkey mind” by gently, non-judgmentally, but constantly bringing the attention back to the chosen focus. Distractions mentioned by the participants included fidgeting, phones and emails, feeling stressed, and tiredness. At the beginning of the course, participants wrote about feeling tired and either falling asleep during or straight after the mindfulness practice sessions but this stopped being reported in the anonymous diaries after three weeks (U Diary 1, and 2, C Diary 1, and 3). Being non-judgmental in practice is often a new experience and, although they were encouraged to be non-judgmental in the sessions, some anonymous participants initially reported that frustration and impatience could affect their practice. As a result, this situation was discussed more in the sessions and, as C14 said, “I tried to not stress about that too much”. Anonymous reports of frustration and impatience also dwindled as the course progressed and only appeared in early diary entries (U Diaries 1, 4, and 5, C Diaries 2, 3, and 4). One participant had physical pain when doing the Mindful Movement, so was advised to refrain from this practice and she chose to take it up later in the course (U7).

Particular exercises could cause problems for certain participants and they were encouraged either to stop that exercise, or to work with the experience, whichever was appropriate for them. C5 found being more aware of putting on make up made her feel uncomfortable so she stopped this practice. C12 felt being aware of blood rushing around the body made her squeamish, and a participant reporting in U Diary 4 wrote that paying attention to food was “gross”. Participants found the Body Scan hard to do on their own (U1, C Diary 3) and U5 said he was worried that someone might walk in the practice room whilst he was doing this usually supine practice on the floor. Some participants reported that the most difficult exercise, Exploring Difficulties, was hard to do during the week (U1, U14, U17, U Diary 5 and 6) but did not report any further consequences either in interview or anonymously in the diaries.

6.2.5 Continuing the Mindfulness practice

In Czajkowski (2013) every participant said that they wanted to carry on doing mindfulness. In a similar way in the immediate post-intervention interview, every participant expressed an interest in continuing with the mindfulness practice after completion of the course to a greater or lesser extent. Twenty-six of the 38 participants agreed to be interviewed longitudinally at the 3-month period. Twenty-five had continued doing mindfulness and one had not (U15). U15 said that although she had MPA, that she would rather pretend the performance would not happen because it was easier and have a glass of wine instead. In general life she felt she was already mindful naturally.

It may have been possible that participants told me they would continue with their practice due to demand characteristics, because, for example, they felt that this might be something I would want to hear. However, in investigating further, they told me the many different ways in which they had continued their mindfulness practice which were specific to their needs and which did not, in most cases, continue in the same way that they had been taught in the MfS course. Many participants had continued a regular practice (U10, U2, U4, U6, U7, U8, C1, C11, C14, C16, C17, C2, C20, C21, C4) although it was not necessarily done on a daily basis (U6, U7, C16, C4). Some participants practised mindfulness less than they had when doing the mindfulness course (U4, U5, U8, U10, U11, U12, C1, C5, C7, C17), which was put down to needing motivation (U5) or a structure (U8).

Participants in the longitudinal study named the exercises that resonated most strongly with them, the Body Scan being the most popular (U3, U7, U17, C2, C11, C14, C18, C21), followed by breathing exercises (U2, U12, U17, C14, C20, U10, U14, C11), Yoga (U2, U12), Mindful Movement (C20), and Sounds and Thoughts (C18). One participant was doing Transcendental Meditation (mantra) (C2), another used the *Headspace* application (C20), and two more were working through the mindfulness book that was suggested in the MfS course (Williams & Penman, 2011) (C1, C21).

Participants had continued to use the mindfulness exercises in a targeted manner specific for their needs (U4, U17, C4, U17): before singing lessons (U10, U17, C5, C20, C21), before singing practices (U2, U3, U6, U17, C2, C5, C20, C21), before performing (U1, U2, U4, U6, U8, U10, U12, U14, U17, C2, C4, C5, C7, C14, C18, C20, C21) and after performing to relax (C16,

C17). Participants also reported using it in daily life (U6, U10, C11), and at stressful times (U2, U14, C1, C16, C21). They noticed the benefits of the practice (U4, U5, U11, C16, C17, C20), and being in the present moment (C14, C21) and they found it assisted at anxious times (U1, U2, U14, C14, C21) to feel calm (U14, C14, C21), focused and controlled (C14). Only U15 had found the mindfulness no help and stopped the practice. Apart from U15, every participant in the 3-month longitudinal interviews said that they would carry on using mindfulness in their own particular ways to a greater or lesser extent in their lives and for singing purposes, with some reaffirming their commitment quite strongly.

6.3 Mindfulness, student life and general well-being.

Student participants spoke about the effects of mindfulness on student life and general well-being: lifestyle development, effects on sleep, academic life and study, general stress and anxiety, the effects of developing awareness in daily life, the impact on relationships with friends and family, and as general non-singing musicians (Figure 6.3).

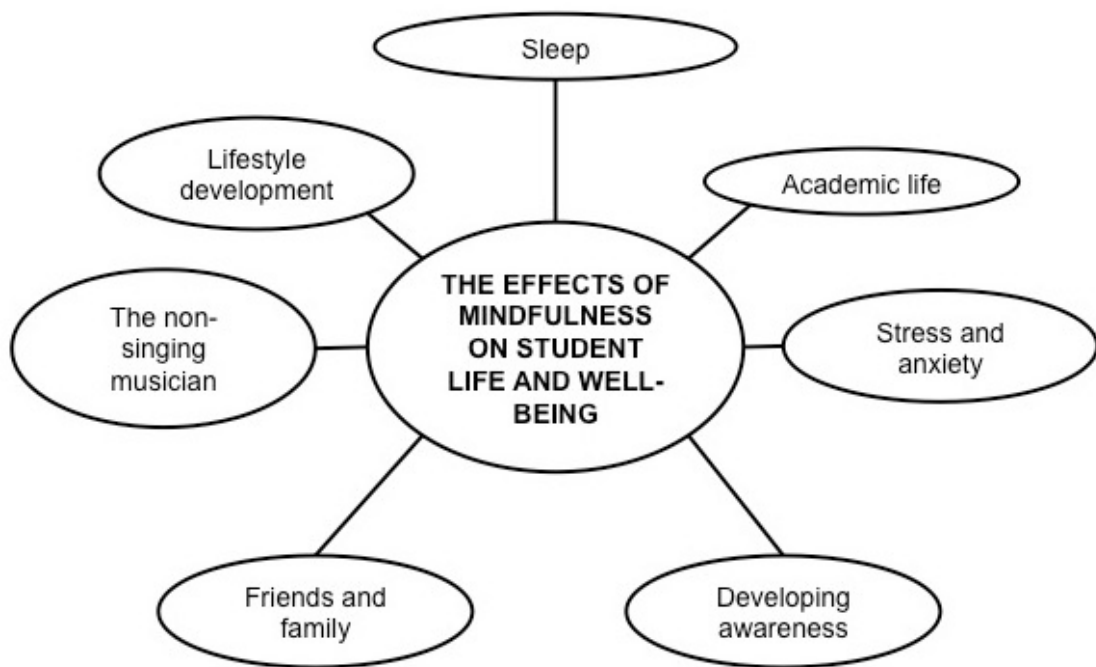


Figure 6.3 Thematic overview of the effects of mindfulness on student life and well-being.

6.3.1 Lifestyle development, and reported effects on sleep

Participants in the current study often tailored mindfulness exercises to suit their lifestyle and preferences. They mentioned the time of day and effect of doing mindfulness exercises that were not specifically targeted before singing activities. Participants who mentioned doing mindfulness in the morning usually did them on waking up. The main effect reported was one of

feeling more awake than normal (U1, U10, U6, U7, U Diaries 2 and 7 and C Diary 1) and feeling more energised (U7, U12, C Diaries 2). Participants felt other mentally positive effects during the day, such as being more present (U7, C Diary 1), and in a good mental frame of mind (C Diary 7, C5, U14, C20).

Other participants did the mindfulness exercises at night. The literature is tentatively positive about the effects of mindfulness or meditation on sleep. As there are different types of insomnia, however, meditation can help some people more than others, and when objective measures are used, rather than self-report, results can be mixed (Ong, Ulmer, & Manber, 2012). Participants in the present study gave self-report data about the effects of mindfulness on their sleep. Certain mindfulness exercises in this study were mentioned as being particularly beneficial for sleep: breathing exercises (U3, U6, C14, C18, U Diary 2, 3 and 5, C Diary 1 and 4), open monitoring thought awareness exercises (C6, C Diary 7, U Diary 7), but the most popular was Body Scan (U3, U10, U17, C9, U Diary 1, C Diary 2). Breathing exercises were said to help relaxation (U Diary 5, C18) and stopped over thinking (C Diary 1). The Body Scan was reported to help with relaxing physical tension (U3, U10, C Diary 2, C9), ease the mind (U17), and learn to accept noises from outside (U3). However, one participant found that doing a Mindful Listening exercise before bed made them “alive to sounds” which was “not good” (U Diary 4), and a participant in U Diary 6 found the Body Scan left them more awake and on edge than sleepy. There were no attempts in this study to delve more rigorously into this aspect, but conflicting results mirror the literature and were a recurring theme in the participants’ data. Some participants mentioned doing

mindfulness at night time but did not comment on sleep (U1, U12, C11, C13, C16) but two participants said mindfulness exercises helped in general relaxation or to wind down after a busy day (U1, U12).

6.3.2 Academic life

Participants reported that their academic lives at university and conservatoire were sometimes difficult to deal with. They mentioned the effects of mindfulness practices on mindset in lectures, studying, doing assignments, revising, and doing exams and they used the full range of mindfulness studies to help them.

Despite not being specifically asked to do mindfulness before lectures, participants still found that mindfulness had effects on them in classes ranging from musicology to song writing (U3, U17, C1, C4, C5, C6, C21). Before learning mindfulness, they reported feeling easily distracted in lectures (U3, C4, C5). After mindfulness, C4 said she noticed when her mind had become distracted, and other participants reported improved concentration and focus (U3, C1, C4, C5, U17) which encouraged C5 to become more involved, interested and find it easier to do subsequent essay tasks.

When studying, participants said that they could easily procrastinate (U7), be distracted (U16) or realise reading was not “going in” (U Diary 1). They felt tense (C Diary 4) with back tension (U Diary 7) and stress (C9). After doing a mindful exercise, like drinking tea mindfully (U16), participants felt more focused (U7, U16, U Diary 1), relaxed (C Diary 4, U16, U Diary 7) with less worry and calmer minds (C9, U16, C Diary 5). Deadlines for writing assignments caused stress (C14, U2, U1, C4, U Diary 2) but participants said

that being more mindful helped them to rush less, stay positive, and feel calmer and more relaxed (C4, U2, U1, U Diary 2). U2 and U6 felt that mindfulness helped them when revising. U6 was doing a lot of memorising and found that the mindfulness exercises gave her a grounding foundation before each study session, saying, “I was able to learn so many more quotes and remember so many more points and things that I don't think I would have remembered otherwise”.

Exams were also said to cause stress where participants reported that they were over-thinking and worrying that they had not done enough (U4, U1, U Diary 1). Being more mindful in exams, they said, helped them to be calmer (U1, U4, U Diary 1) where U4 rationalised, “This is it, can't change it now!”

6.3.3 Stress and anxiety

Tosca, a vocal teacher of many years, mentioned that nearly all her vocal students were on some sort of medication for anxiety or stress. “It's so prevalent now”, she said, “It's very scary...was it always there?” Elvis, a conservatoire teacher, said, “If you talk to our counselling service, they're like, it's like double what we've ever seen in the past.” Stress was also mentioned by participants in Czajkowski (2013), in Hribar (2012), and was a common theme in research with high school students (Burnett, 2009).

It was very clearly stated before, and at several points during the intervention, that the MfS course was not a therapy, neither was it a clinical intervention, and should not be considered as such. However, like Czajkowski (2013), and Hribar (2012), during the course, music student participants were particularly helped by the intervention of mindfulness when dealing with

anxiety and stress in daily life. It was often mentioned in the diary data (U Diaries 1, 2, 3, 6, 7, C Diaries 1, 2, 3, 4, 5, 6, 7) and eighteen participants also talked about it in interview.

Reported symptoms of stress and anxiety included a faster heartbeat, tension, tightness, shaking, sickness, panic, fear of socialisation, and numbness. Mentally, participants described over thinking, having a lot on their minds, or clinging to thoughts (U Diary 6, U2, U16, C Diary 1, 2, 3, 4, C1, C4, C9, C18). More seriously, clinically diagnosed chest pains (Costochondritis), skin conditions, clinical anxiety, panic attacks, and depression were mentioned (C4, C9, C14, U10).

Participants found that mindfulness exercises, such as those in Table 6.3 had a positive effect on their stress and anxiety where general unspecified breathing exercises and the Body Scan were mentioned as helping most often. Participants described having less anxiety and stress after doing mindfulness exercises using a variety of terminology such as feeling calmer, less distress, reduced tension, feeling more grounded, relaxed, and connected (U1, U2, U4, U6, U10, U14, U15, C4, C9, C11, C14, C16, C21, U Diaries 1, 2, 3, 6, 7, C Diaries 1, 4, 6, 7). They also mentioned feeling more present (U10, U14, U16, C4, C21) which helped them deal with daily stress and anxiety. Not everyone had a positive response. One anonymous participant found it was of no help for stress (C Diary 4), and another in U Diary 1 found that the exercises had made them realise how anxious they were taking exams, which is a normal step in mindfulness development for some people who have subconsciously ignored emotions and feelings in the past. U16 had not found it directly effective but, like C21, she liked having something to do, a strategy

to help. However, other participants had very positive responses. U10 reported having had no panic attacks since starting the mindfulness course, C9 said that she had only had chest tension once, C4 reported that she had not engaged in OCD behaviours, and C21 found that using the techniques took away his tension completely.

Where stress and anxiety were concerned, the participants described new responses to daily life, such as seeing what is important, being more rational or having a different frame of mind (C4, C9, C11, C Diary 4). They mentioned being more self-compassionate and kind and used more mental positive talk (U2, U10, U13, C9, C11, C14, C18, C Diary 5), such as “You can do it” (U2) which increased confidence (U13) and made them feel better (C18). They described clearer, quieter, and more accepting mindsets (U1, U15, C9, C Diary 1), although some said that they still felt thoughts clinging (C Diary 3).

Symptomatically, participants reported reduced tension, less shaking, a more solid speaking voice, and deeper and freer breaths (U13, C4, C13, U Diary 7, C Diaries 1, 2). They were also able to notice stress and anxiety building up quicker, which encouraged them to engage in self-care more efficiently (U2, U13, C1, C Diaries 4, 7). Altogether, many participants described mindfulness as “helpful” for stress and anxiety (U1, U2, U4, U10, U16, C1, C2, C4, C16, C21, U Diaries 3, 7, C Diaries 6, 7), U10 felt it was not 100% due to the mindfulness course but it had “definitely helped”. It was reported as the main coping general stress strategy for C2 and C4, where C4 felt that it could only be because of mindfulness that her chronic anxiety had been relieved because she had tried everything else.

Table 6.3 Types of mindfulness exercises specified by MfS participants for daily stress and anxiety

Types of mindfulness exercises used for daily stress and anxiety	Participants
General breathing exercises	U2, U13, U Diaries 1, 6, 7, C Diaries 1, 4, 5, 6, 7
Body Scan	U6, C9, C21, U Diary 2, C Diaries 2, 4
Breathing Counting	U1, U10, U14, U Diaries 6, 7
3-Minute Breathing Space	U1, U Diary 1, C Diary 1
Mindful Movement	U16, U Diary 7
Mindful Walking	U2, C4, U16
Yoga	U2
Habit awareness	U16
Breathing Journey	U Diary 7

6.3.4 Developing awareness

Participants also talked about their general mindful awareness development that was not associated with singing. The diaries were full of reports of increased physical body awareness during and after mindfulness exercises, such as being aware of heavy limbs, tired arms, tingling, muscles, walking, posture, face, hands, and beating hearts, temperature, momentum, and taste (U Diary 1, 2, 3, 4, 5, 7, C Diary 1, 2, 5). In interview, participants also mentioned becoming more body aware (U3, U5, U6, U7, U11, C3, C9), as U5 said after describing his favourite exercise, Mindful Movement,

I suppose I just felt like it had the biggest effect. I felt most conscious of the way my body felt afterwards. I always felt very tall after doing it as well.

They also reported new awareness of mental states such as mood awareness, thoughts arising, feelings such as impatience, over-thinking even when life was good, noticing what the mind does when rushing, spotting when they were distracted, feeling more present in mind, and realising that they were mindful of some things and not others (U5, U7, U8, C4, C7, C17, U Diaries 1, 2, 3, 4, 5, 7, C Diaries 1, 2, 4, 5) where a distinction between mindfulness and happiness was noticed which was found intriguing by one participant (U Diary 5),

I think it's important to make the distinction between mindfulness and happiness – being more aware doesn't mean you can deal with it. Perhaps this is more of a reflection of myself at the moment but from brief bits of mindfulness that I have done before, it does seem to be a trend.

6.3.5 Friends and family

Participants reported that being more mindful helped them become more aware of other people's movements, speaking, and how they interacted less or more with friends (U7, U8, C7, U Diaries 4, 5) but U15 felt she had always been naturally aware in this way. In conversation, we often spend time thinking about our response while someone else is talking. This often means that attentive and present moment listening is lacking. Part of the mindfulness course involved listening exercises where participants were encouraged to have a conversation with another participant, the goal being to listen fully to the other person before responding. Like participants in Czajkowski (2013), some participants reported that the mindfulness course helped them to listen more attentively, which then had a positive effect on their relationships with friends and family (U6, U8, U11, C5, U Diary 6, C Diary 7) and developed more profound (U Diary 6) and sensitive relationships (U11). They found it

easier to interact with others (U5, U6, U11, C5, C15, C19, C21, C Diary 4) through noticing quicker if their attention had wandered from the interaction (C5, C15), found that they became more self-reflective on their treatment of others (U5, C5), could control self-release from social anxiety (C19, C21), thus building stronger relationships (C5). Demand characteristic bias was probably strong in this area because the teaching and practice of Mindful Listening to friends was made very explicit. However, it is interesting to note all the different ways that participants experienced the effects of utilising more mindful listening in their daily lives, which were not explicit in the teaching.

6.3.6 The non-singing musician.

Singers, as musicians, are aware that listening is important but participants found that they became more observant of music and sounds around them in a new, enhanced way that was not related to their singing (U8, U11, U Diaries 4, 5, 7). Participants in Diaz (2013) also found that a small amount of mindfulness training heightened their experience in music listening increasing attention, flow, and aesthetic responses (see Chapter 1, Section 1.2.2). MfS participants became more aware of their physicality being affected by music and sounds and how others who performed used their bodies (U Diary 4 and 6, U11, U12). U11 was intrigued as to how her body responded to different music, and U12 noticed everyone's individual stage presence, which she had not perceived before. More performance aspects were observed in other people's performances, such as dynamics, staccato, styles, and timbres (U Diary 4, U12), such as piano strings resonating. The participants reported becoming more aware of music's effect on their mood

changes, they noted their mental response to music and lyrics and became aware of watching the mind drift away, and became frustrated with disliked music (U Diary 4, 6, and 7, U11, C Dairy 1). It was reportedly easier to be present with live music versus recorded music, soloist versus a group, instrumental music versus a singer, and liked rather than disliked music styles (U Diary 4, 6, C Dairy 6). Participants also said that they had become aware of a variety of new things, such as lyrics in familiar songs that they they had never heard before, being too busy to really listen to music, or that music is a 'doing' rather than a 'being' experience (U8, U11, U Diary 4, C Diary 6, and 7). U8 realised that she had not been "listening" to music but just "hearing" it in the past and was determined to change and become more "respectful". Participants also found themselves enjoying the Mindful Listening experience (see Appendices W and AR) more than expected, reporting that they found elements they liked in previously disliked music, or an enhanced, heightened physical and mental connection to music and lyrics that they had not felt before (U Diary 4, C Diary 6). One anonymous university participant said, listening to "One of my fave songs...I loved it tenfold!" and another said it "makes me appreciate music and my hearing a lot more".

Participants also mentioned the effects of mindfulness on their instrumental studies in piano (U Diary 6, U3, C Diary 4, C6, C8), violin (U Diary 2, U3), and composing (C10). Before being more mindful, U3 said that she felt self-critical, played automatically without hearing or feeling, and was nervous about not concentrating in performance. C8, also a pianist, described feeling tense in his posture and that he could not express himself in solo playing as he felt unbalanced and rigid. After mindfulness, participants

reported feeling more relaxed (U Diary 2), less self-critical (U3, C10) and concentrated and focused (U Diary 6, U3, C6, C10) where U3 felt that it was now normal to get distracted but “it’s all about bringing it back”. U3 felt that she was more able to feel her fingers and be aware of sound production in practice, and used breathing to control her shaking hands in performances. Participants mentioned that they felt more comfortable playing (U3, C8), and in a better position to express themselves creatively (U3, C8, C10). Mindfulness had a big effect on C10 when composing which was similar to findings in Newton (2015) where three composers found mindfulness meditation had enhanced their focus and awareness and the ability of “non-striving”, which helped them be more creative. C10 mentioned being more focused which helped her to make choices from a variety of musical possibilities, saying, “it made me just think about -, just to accept what you do, and the music is a big part of what you do...see how it goes”.

6.4 Chapter summary

This chapter has described the participants’ experience of taking a mindfulness course and reported the effects of learning mindfulness on their student life and general well-being. It has shown that student participants enjoyed doing the mindfulness course and occasionally found it hard to do the regular daily practice but nearly every participant said they would continue with the practice after the course ended which was reiterated by them in the 3-month interviews. They described a variety of beneficial effects from doing the course in their daily lives, such as positive effects on getting to sleep, improvements in lifestyle, and help with academic workload stresses and

examination periods. Many said that they found relief for general daily life stress and anxiety, even though the course was not designed as a therapy. They described developing more awareness in daily life, there was a positive improvement in relationships with friends and family, and they said that they were more appreciative of music and sounds even when they were not personally and practically engaged in musical activities. The next chapter describes the findings relating to learning mindfulness in singing lessons, which includes the reported mental and physical effects in lessons, and the reported effects on the student/teacher relationship.

Chapter Seven – Mindfulness for Singers qualitative results: Singing lessons

7.1 Introduction

This chapter investigates the qualitative effects of learning mindfulness in the area of singing lessons and combines data from both student and teacher participants. After a short contextual introduction, there is the report from the teachers' blind study, followed by findings from both sets of participants in two major themes: mindfulness effects on mental mindsets, and the effects of mindfulness on physical awareness and learning singing technique. The chapter concludes with a section reporting the teacher validation of the course and a chapter summary. The major themes and subthemes in this chapter are detailed in Figure 7.1.

In Czajkowski (2013), participants reported positive effects in singing lessons, such as improvements in focus, increases in body awareness that enhanced learning singing technique, and improvements in teacher/pupil relationships. In the teachers' blind study, teacher participants were able to identify 6 of the 8 participants from a combined total student register of 32.

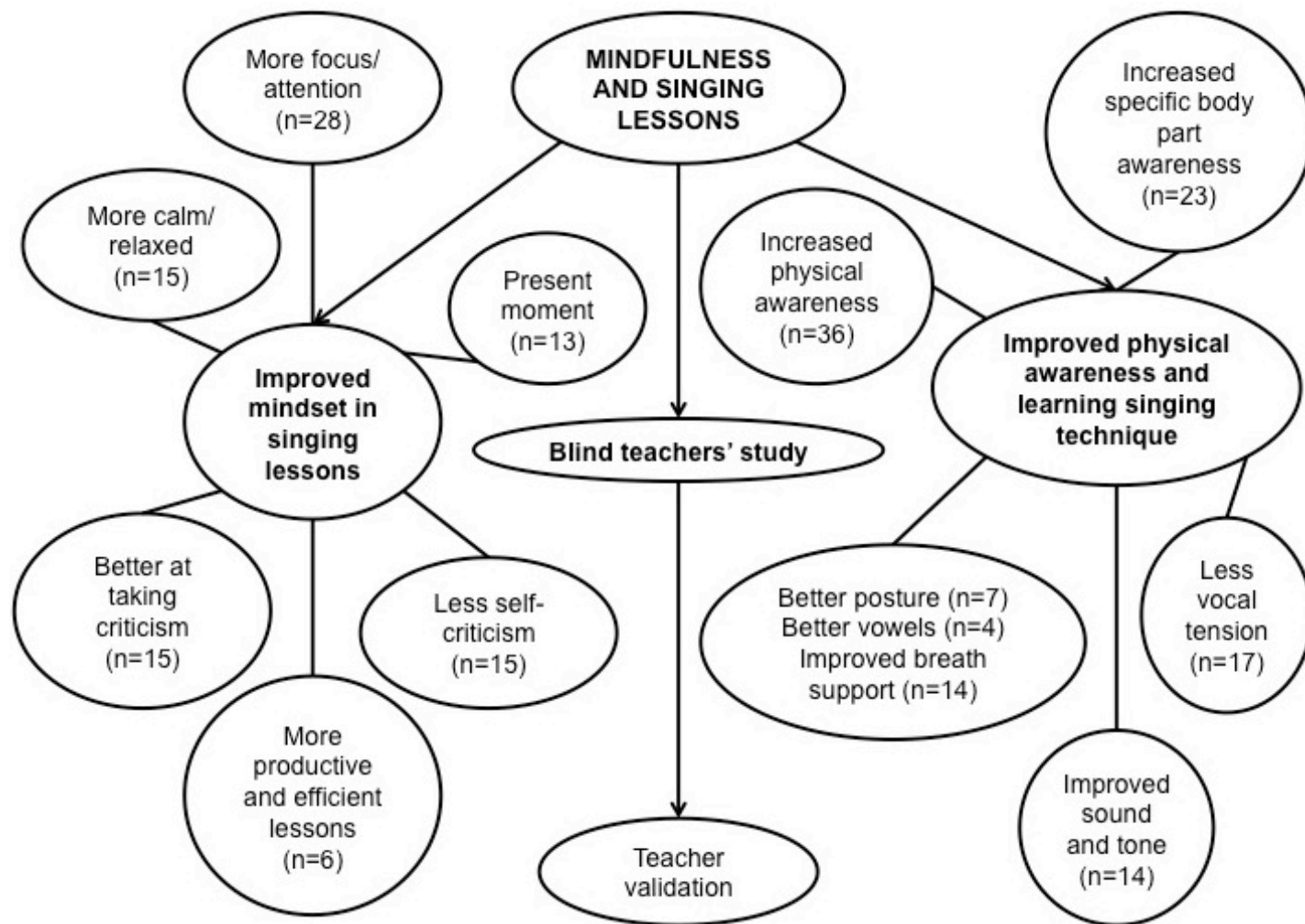


Figure 7.1 Thematic overview map of the effects of mindfulness in singing lessons.

Participants were asked to do 10-minute formal mindfulness exercises directly before singing lessons and every participant in Czajkowski (2013) reported doing this before some, or all, singing lessons. However, participants in the current study described a variety of compliance: before every lesson, some lessons, or none at all (although this group did report doing mindfulness regularly at other times of the day) (see Table 7.1). Those who expressed difficulty in doing mindfulness before singing lessons were asked the reasons why. Problems identified were that lessons could be straight after lectures (U2, C3, C5), irregular (C2), or were too early in the morning (C7, C8). Participants could be late to attend (C11, C16, C18), and have a long distance to travel (U8). U15 chose not to do as asked but C17, however, did mindfulness exercises during, as well as before, her lessons.

Early in the MfS course, participants were asked, prior to singing lessons, to test out a specific mindfulness exercise learnt during the session the week before. However, towards the end of the course, they were encouraged to use whatever they found most useful. Some participants specified the mindful exercises they had chosen to do before singing lessons and their responses are detailed in Table 7.2.

Table 7.1 *Mindfulness participants who did mindfulness exercises directly before singing lessons*

Mindfulness before lessons	Participants
Most or all lessons	U1, U2, U3, U4, U6, U7, U9, U10, U12, U14, U16, U17 C1, C2, C4, C6, C9, C10, C12, C13, C14, C15, C16, C17, C18, C21
Sometimes/not always	U5, U8, C3, C5, C11, C19, C20
None at all	U11, U13, U15, C7, C8

Table 7.2 *Mindfulness practices that participants specified using prior to singing lessons*

Mindfulness practices	Participants
Body Scan	U1, U5, U6, U7, U9, U10, U16 C3, C5, C9, C11, C12, C13 U Diary Week 1, C Diary week 1
Breathing Journey	U6, C1, C15, C21 U Diary Week 5
Breathing Counting	U4, U10, U16, C11 C Diary week 1
Breathing - general	U4, U7, U12 C Diary week 1 C3, C6, C10, C11, C13, C14, C16
Mindful Movement	U4, U7, U12, C3 U Diary week 5, C Diary week 1
Walking Meditation	U16
Sounds and Thoughts	C6

7.2 The teacher blind study

Student participants were eligible for the teachers' blind study if they had a university or conservatoire-approved teacher and if they were with that same teacher for the academic term before and during the study.

Participants' teachers were interviewed at the end of the intervention to see if they could ascertain which of their students had participated in the intervention (see Appendix F for the interview questions).

At the university over two years, 12 out of 17 student participants were eligible for this part of the study and they were taught by three university singing teachers who consented to take part. Five participants were ineligible: they changed teacher, did not have a university accredited vocal teacher, or stopped lessons during the intervention (U5, U8, U11, U13, U14). The teachers had a combined total student register of 38 over the two years. They identified seven of the 12 eligible participants.

At the conservatoire, there were 22 participants who completed the course who were taught by a total of nine conservatoire teachers. One teacher did not respond to the invitation to take part resulting in three participants being ineligible for the teachers' study (C2, C8, C11). Eight teachers identified 12 of the 19 remaining out of their combined student total of 98.

To summarise, 11 singing teachers taught a total of 136 students over a period of two years at two institutions. This included a MfS participant subset of 31 who took part in five iterations of the MfS course. Of these 31, teachers correctly identified 19 participants (see Figure 7.2). In 2013, Czajkowski had eight eligible MfS student participants taught by three singing teachers who

taught a total of 38 students. The teachers correctly identified six participants (see Figure 7.3).

The reasons that teachers gave for correctly identifying students covered improvements in observed changes in students over a variety of areas: attitude to the teacher, to the lessons, to learning technique, in their voice, to themselves, and in performance. These topics are discussed in more detail and in comparison to student participants' interview data later in this chapter.

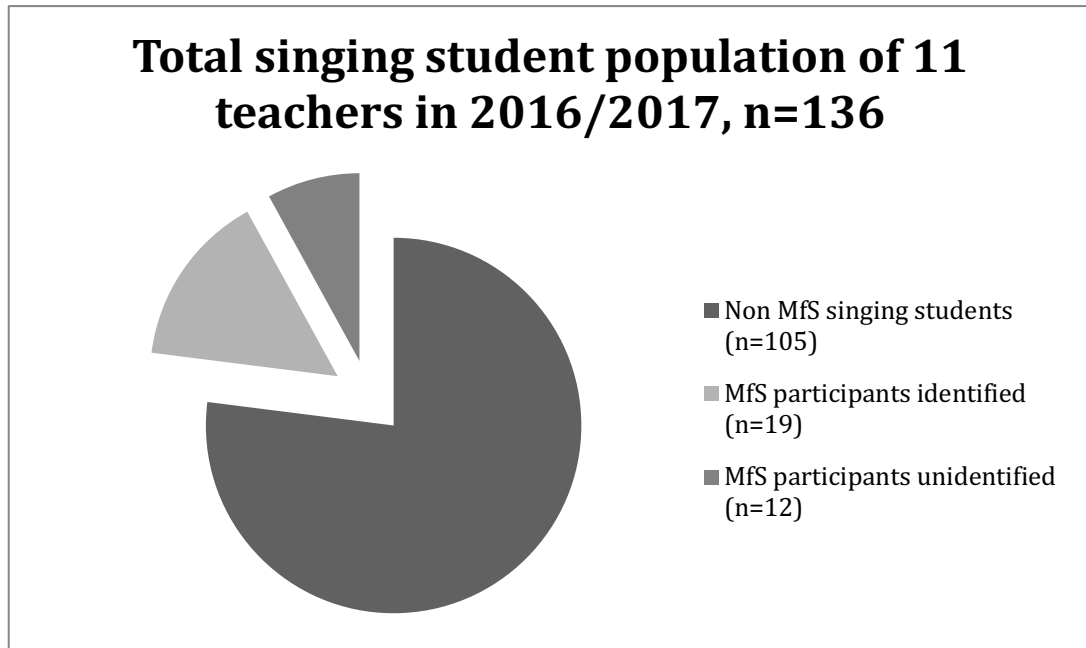


Figure 7.2 Total singing student population and MfS participants identified or unidentified in the current study.

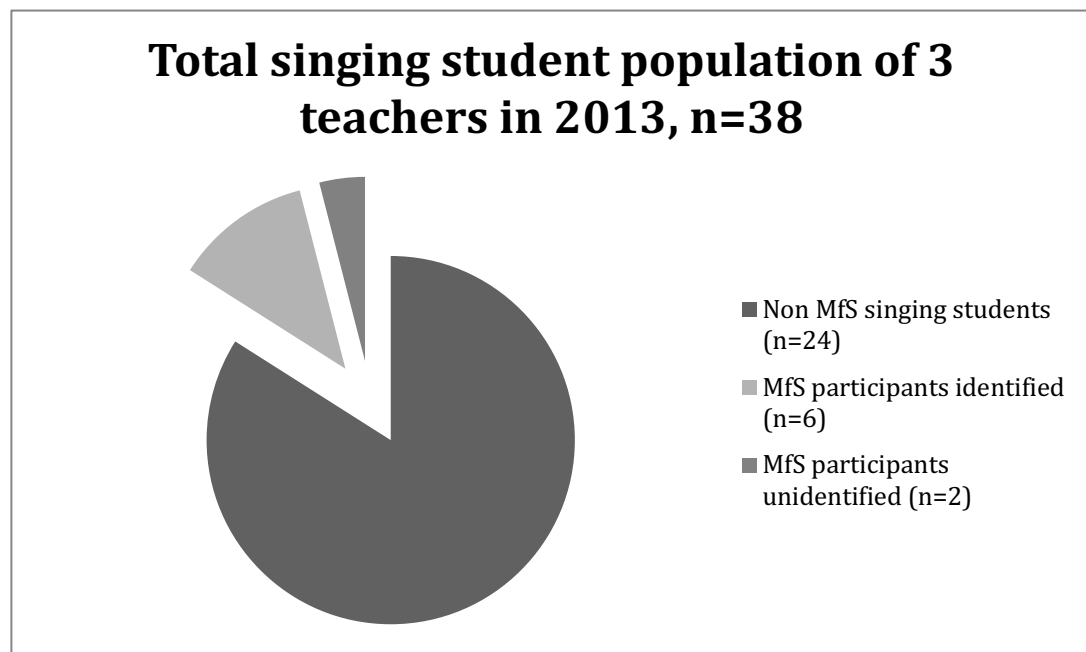


Figure 7.3 Total singing student population and MfS participants identified or unidentified in Czajkowski (2013).

Once the teachers had specified which of their students they thought had taken the course, they were told which, if any, of their students had been missed and asked for their opinion on this non-identification. At the university, the teachers gave reasons for non-identification of five participants: voice being a second study (U3), gradual improvement over time (U12, U16), and always being excellent students (U4, U7). At LCOM, the teachers did not identify seven participants and they gave the following reasons for non-identification: C6's change was attributed by her teacher to something else, which C6 attributed in the interviews to the mindfulness course (see Section 7.4.6). C7 had not attended enough lessons that term for a change to be noticed, C9 had demonstrated no big difference of behaviour in lessons, C14 had no reason given, C17's change was attributed to a phone call with her teacher, and C19 had not been expected to be interested in this type of course. One participant who completed the course did not turn up to the interview and therefore has no interview identification tag (DH) or interview data for comparison to teacher data. Despite not being identified, DH was described as originally being frantic and disorganised but, after the intervention, being a little calmer with a better attitude and more focused.

Identification status is summarised in Table 7.3 but, due to the ease with which it might be possible to detect students and teachers from their pairings, details about which teacher identified which student are obscured. An overview of each teacher's specialism and student identification details is shown in Table 7.4.

Table 7.3 *Teachers' identification of students as MfS participants*

Identification status	Participants
Not eligible for the blind teacher study	U5, U8, U11, U13, U14, C2, C8, C11
Identified	U1, U2, U6, U9, U10, U15, U17, C1, C3, C4, C5, C10, C12, C13, C15, C16, C18, C20, C21
Not identified	U3, U4, U7, U12, U16, C6, C7, C9, C14, C17, C19, DH

Table 7.4 *Overview of teacher participant details and student identification*

Teacher	Institution	Styles taught	Total students	Total MfS participants	Total MfS identified
Beatrice	U	Classical	10	4	3
Despina	U	Classical	16	6	4
Ella	U	Jazz	12	2	0
Elvis	C	Pop	25	2	1
Sade	C	Jazz/pop	14	1	1
Adele	C	Pop	8	3	1
Lucia	C	Classical	8	4	2
Enya	C	Pop	9	2	1
Papageno	C	Classical	7	2	2
Tosca	C	Classical	6	2	2
Joni	C	Pop	21	3	2
<i>Total</i>			136	31	19

U= University

C= Conservatoire

7.3 Mindfulness effects on mental mindsets in singing lessons

7.3.1 Introduction.

Singing lessons are collaborations between students and teachers and relations between them are paramount to success (Gaunt, 2008). Although it was the student participants who learnt mindfulness and applied it in lessons, both teachers and students noticed and described the effects of mindfulness on the process.

The relationship between students and teachers at universities and conservatoires has been a topic for some debate in the past. Kingsbury in his study into conservatoires in America (2001) found that students and instrumental teachers considered a positive relationship to be a “necessity by almost everyone” (p. 38). Gaunt, however, in a trio of studies at the GSMD (2008, 2010, 2011) (see Chapter 2, Section 2.2.2) looked into relationships between students and teachers from both viewpoints and found this “positive relationship” somewhat wanting.

In 2010, Gaunt investigated students’ perceptions of good and bad qualities in an instrumental teacher: good qualities were being constructively critical, caring, and having a sense of humour, and bad qualities were described as being distant, abrupt, or unpredictable. Participants in the current study, in a similar way to those reported in Gaunt (2008), also spoke about their relationship with their singing teachers and vice versa during the interviews and reported similar findings. They also took research further by speaking about the effects of mindfulness on these relationships and on their singing education. Pre-mindfulness, eight of the 38 participants described being content with their singing teacher in general (U5, U6, U14, U15, U16,

C3, C7, C10) where, for example, U16 described her lessons as a “nice environment” and where her teacher gave her plenty of positive feedback. However, some student participants reported being frustrated, irritated, or stressed by teachers (U4, U7, U10, C4, C9, C19). Teachers described being dissatisfied when student/participants were not organised, or did little practice, were moody, or seemed uncommitted. They also commented when students were under confident or over confident, too pleasing or too controversial, or too self-conscious or overly self-critical.

Post-mindfulness, participants described mindset changes engendered by becoming more mindful such as: being more in the present with improvements in attention and focus, developing a balance, relaxed, calm and positive mindset, better ability to take criticism, improvements in self-criticism, and more productive and efficient lessons. Teachers also observed students’ mindset changes and how they impacted on pupil/teacher relationships, communication, and the singing lesson process. These changes are described in more detail in the next sections.

7.3.2 In the “present moment” in lessons

In Czajkowski (2013), pilot study participants said that doing mindfulness activities directly before lessons had the effect of “separating” singing lessons from other activities. This finding was reiterated by participants in the current study (C3, C5, C Diary Week 1). As a result, participants in both studies described feeling more in the present moment during the lesson using a variety of synonyms. They described feeling more attentive and focused, more grounded (U4, U6), “in the zone” (C3, U14), being

“here” (C13), not in their “own world” (C20), and more present (U15, C15, C17). C19 felt she was brought into the room “right now”, similarly to U5, C1, and C6. They also felt calmer and more positive where U2 described feeling in the right mindset, and U7 was able to “get rid of the crap” before going into learn. Teachers also noted improvements in the lesson attitudes and mindsets of their identified student/participants. They described them as more receptive, responsive, collaborative, open minded, descriptive, and less moody (U2, U6, U10, C12, C15, C16, C20, C21). Identified students were also described by teachers as more hardworking, communicative, positive, reflective, open, polite, and attentive in lessons than before (U1, U9, U15, U17, C1, C3, C10, C20).

7.3.3 Focus and attention

Attention can be an issue in any repetitive form of learning as “from kindergarten on, if not before, we are all told to pay attention. Although no one feels it necessary to explain what this means” (Langer, 1998, p.35). A study of 96 piano lessons with 48 teachers who taught two pupils each was undertaken by Kostka (1984). She observed that students were inattentive for, on average, 15% of the lesson time, which had a bearing on learning effectiveness. Diaz (2013) suggested mindfulness might increase concentration and awareness for tasks relating to music such as psychomotor or creative activities. The most prevalent effects reported by participants in the present study were being more aware and focused in lessons which extends Diaz’s ideas possibly from speculation closer to fact. Participants felt less on automatic pilot (U1), more concentrated (U2, C4), conscious (U10), and

attentive (C20). However, C9 said that this depended on her mood despite improving by +2 on the associated item 3 of the MfM “In instrumental or singing lessons, I always pay attention and never daydream or get distracted.” In interview, C11, C13, C20, and C17 said that they were aware that their minds used to wander in singing lessons or get easily distracted, and they were part of the large group of 29 participants who described feeling more focused after doing mindfulness exercises (U4, U6, U7, U8, U9, U10, U14, U16, U17, C2, C3, C4, C5, C8, C9, C11, C13, C15, C16, C17, C18, C19, C20, C21) or more aware (U1, U3, C2, C4, C10, C12, C13, C15, C17). This large group effect matches well with Czajkowski (2013) where all participants described feeling more focused, aware and concentrated in lessons after doing mindfulness beforehand. Teachers who guessed that their students had been participants mentioned that U1, C20, C3 and C4 were always seen as focused and attentive. Ten participants were described by teachers as definitely having improved in attentiveness, concentration, awareness, or focus (U2, U10, U15, C4, C5, C10, C15, C16, C18, C21), an effect also noticed by the teachers of participants in Czajkowski (2013). Of C15, teacher Joni said, “she's come in with a definite focus,” and C15 corroborated this. There were some interesting relationships between participants' responses to MfM item 3 and participants' interview responses. As expected, participants who improved by +2 (C2, C9) and +3 (C11, U17) also reported feeling more focused or aware in interview. However, 4 of the 5 participants who scored -2 on this statement over the course of the intervention (C4, C5, U8, U10, U13) also mentioned improvements in focus and attention in the interview. Only U13 was silent on this subject, although this may have been because she did

not have singing lessons. It is curious to wonder why these MfM scores for participants decreased over the intervention when, for example, C5 commented,

When I did it beforehand, I was ... 'Okay, this is my singing lesson, ... this is what I want to work on,' and I was really focused. It made such a difference.

It is possible that participants were more likely to give answers they thought the researcher wished to hear in interview and to be more candid in the more anonymous questionnaires. However, this participant also immediately compared her experience of being more focused in other areas of singing with detail so it is possible that on the day of the questionnaire, she was not feeling as focused as normal.

Other participants discovered that their general listening was improved (U4, U6, U8, C8, C13, C15, C17, C20), for example, C17 said that she was able to take more from the lessons, able to process more what had been said, and understand better what needed to be done. Teachers described improvements in participants' listening skills (U2, C3, C13, C15, C18), which had also been noted by teacher participants in Czajkowski (2013).

7.3.4 Feeling calmer in lessons

Participants said that they felt more centred, relaxed, balanced, calmer, and more positive in lessons (U2, U7, U10, U14, U17, C2, C6, C8, C10, C11, C14, C16, C17, C18, C19, C20) where C11 said, "I just feel like things come easier. Maybe perhaps because I'm relaxed, more relaxed, or just calmer in a sense and I'm not worrying". C15 and C11 felt less impatient, and C6 described feeling more comfortable. In this current study, as well as the pilot

study (Czajkowski, 2013), teachers described identified participants being more relaxed, calmer, settled, more still, or composed in lessons after doing mindfulness (C4, C6, C13, C15, C16, C18) where C6 was less likely to cry, and C18 displayed more rational boundaries.

7.3.5 Taking criticism

Participants reported having no problems taking criticism from their teachers where it was pleasantly and constructively given (U1, U3, U5, U6, U10, U16, C7) but U10 found that her teacher regularly criticised her and “often not in the most pleasant way. It’s just quite abrupt.” Several participants felt the same about their experience of abrupt or sarcastic criticism (U4, C4, C5 and C9) but others felt that it was their reception of the criticism that was the problem (C12, C16, C18, U6, U8, C9, U10). They described wanting approval (C16) or berated themselves if things went wrong (U6, U8). Some participants were highly self critical when things went wrong (U14, C3, C14, C16, C18). This meant that participants developed mixed feelings about singing lessons. U6 said, “It’s funny how scared you can feel even though it’s just your singing lesson” and other participants also reported feeling anxious about lessons (C4, C8, C9, C10, C13, C16, C18, C21). They were worried about their volume of work (C10), being busy and yet underprepared (C4, C16) and C9 worried about her teacher’s “passive-aggressive” teaching style, and was concerned afterwards if, through anxiety, she had not attended. C9 felt that she should have changed teachers at the beginning of the year but had not changed because she had been worried about her teacher’s reaction,

an issue highlighted in Gaunt (2008) where changes had been delayed because students reported fearing their teacher's response.

Criticism is a necessary part of every teacher's duty but it must be carefully handled if it is to be effective and promote improvement (Atlas et al., 2004). Students' abilities to deal with any type of criticism can vary from day to day but there are some students who are more sensitive and find taking criticism harder than others. In 1994, Atlas designed the Sensitive to Criticism Scale and used it with 19 college music students (Atlas et al., 2004). The researchers discovered that those who were the most sensitive could lose confidence and motivation due to teacher criticism. This could affect the student/teacher relationship and they advised that music teachers should be aware of this and sensitive to the different personalities of their students. Part of the MfS course included discussions and practical exercises in dealing with criticism as a singer and in daily life. Participants were encouraged to use self-inquiry to investigate their mental and physical response to criticism, realise that criticism as a singer is rarely personally directed, and apply mindfulness techniques when listening to criticism from peers during Week 7's Performance Workshop. Recordings were taken of the Week 7 performances and criticisms, and participants were sent their individual contributions as MP3 tracks to listen to later in order to see if their memory of the criticism they received matched the reality on the recording.

From the current participants' reports, the MfS course seemed to have a positive influence in this area for a large majority in a similar way to participants in Czajkowski (2013) who described feeling less offended, less upset, and more accepting of criticism. Like them, current participants

reported being able to listen to and assess criticism in a new way (U2, U4, U10, C1, C2, C4, C5, C6, C9, C11, C12, C13, C16, C18, C19), where, for example, U4 did Breathing Counting whilst her teacher talked to help her keep distance from the criticism. Participants also deflected criticism in a variety of ways. C9 described thinking to herself “Yes, she said this, she is like this, but I can’t change her. It’s her personality, not my personality” which put her in a better frame of mind, C1 and C16 decided that their teacher’s criticism was only to help them be better, and U10 realised that she could handle criticism better if she felt it was just the singing and the song being criticised, and not her personally. Criticisms were taken with “a pinch of salt” (C1), C4 decided that her teacher’s opinion “isn’t everything”, and applied positive thoughts, such as “it’s going to be fine” (C4, C5). As a result, participants found it easier to handle criticism in general, not letting it get them down (U2, U10, C6, C9, C11, C13, C18). Only U9 reported that doing mindfulness did not help with criticism from her teacher but others felt that being able to cope with criticism improved communication (U10, U12, U14, C5, C17, C18, C19) and U10 said in her longitudinal interview that lessons “just seemed to flow so much more easily maybe because I was just more alert and being able to communicate with her better”.

They recognised that their mindset and attitude in lessons had changed to a more accepting stance (U10, U17, C9, C11, C16). C16 said,

Before I was just-, yes, I just wanted them to say, ‘Oh, that’s really good,’ but now I just think, ‘That’s not what the lesson’s for. What’s the point if you want them to say that?’ It’s nice to have compliments on the things you are doing well, because it keeps you feeling like, ‘Oh yes, I’m improving. It’s not all bad,’ but being able to balance the positive and the constructive things, and, yes, just not getting bogged down by the negatives.

Teachers also noticed a change in identified participants who were seen to take criticism better, be more open to feedback, less afraid of failure, (U2, U6, U8, U9, U15, C1, C10, C15, C16, C20, C21) and be more positive (U9, U15, C16, C19, C21). Participants said that they felt more relaxed and less anxious with teachers (C4, C14, C18, C21, C19).

7.3.6 Self-criticism

Participants said that doing mindfulness before lessons also helped them engage with themselves more kindly and with less self-criticism if things did not go well (U6, U8, U14, U16, C4, C6, C8, C14, C17, C18, C19) where, for example, C6 said,

It's made me less-, I'm not in my head as much, so it means I'm less self-conscious about making mistakes. I feel more comfortable as well. I'm just there and I'm just like, 'Well, I'm going to do what I'm going to do and if I make a mistake that's that.' I don't feel as much pressure, which is nice as well.

Student participants who had been seen as sensitive, anxious or overly self-critical by teachers, were described as seeming less self-critical (C1, C6, C13, C15), more self-compassionate, more accepting of themselves and their voices, being more rational, more grounded and happier (C1, C4, C5, C6, C13, C15, C18). C6, for example, was seen by her teacher to accept herself more as a person so that she could accept who she is as a performer. Six of the eight music student participants in Hribar (2012) also reported an increased sense of acceptance and self-compassion as musicians after learning mindfulness and there was a similar finding in Czajkowski (2013) from both students and teachers.

Teachers in the current study saw student participants as more accepting but still aware of the work that needed to be done (C4, C6, C13, C18). Tosca felt that C13, for example, was originally extremely critical of her own voice. She had been seen to learn to accept where she “is” vocally in the present but still with the consideration that there is always an improvement to be made. However, where this ability to accept the reality of the vocal present was mostly seen to be a positive, in one case this was considered a negative. Lucia felt that C5 had come to accept her own “croony voice”, resisted adopting technical advice about diaphragmic support, which would address this problem, and had taken a vocal step back. Conversely, C5 said that her teacher had told her in the past that she got very worked up about her singing and needed to be easier on herself, which was why she had taken the mindfulness course. On the subject of support, she said the Body Scan had helped her to improve her body awareness and that “it’s really improved over the past few weeks”.

As there was such a discrepancy between C5 and Lucia’s responses, C5 was asked at her longitudinal interview if there had been any conversation between her and Lucia. However, C5 said that she had not had a lesson since finishing the course. The reason for the discrepancy is therefore a matter of speculation but in looking at the responses from the three other students of Lucia that were interviewed, there may have been general difficulties in communication between Lucia and her students. Their responses suggested that Lucia and her students did not always understand each other clearly and this could be the reason why there is a discrepancy between C5 and Lucia in this instance.

Participants reported feeling more confident with teachers (U7, U10, U17, C11, C14, C17, C18) and happier to question (U7, U10). Teachers also noticed an improvement in levels of confidence in the student participants (U1, U6, U9, U17, C1, C4, C6, C12, C16, C18, C20) where U1 was described as making “more of an entrance” into the studio and C4 was noted by her teacher as being more direct, saying “this is what I’m doing”.

7.3.7 Productive and efficient lessons

As a result of new positive mindsets, participants reported more productive or efficient lessons, especially when they had some agency in the lesson structure and content. U12 felt that she learnt faster, U16 said the lesson was more directed, and U17 described her lessons as having more structure. C13, C18 and C19 and participants who wrote in C Diaries 1 and 5 reported more productive lessons with better organisation of time. Participants’ teachers also noticed some participants being more organised in lessons (U2, U15, U17, C13), for example, U2 was discovered writing things down. U17 said, “After I took the mindfulness lessons, I started to be thinking of a structure of my lesson” and teacher Despina had noticed this saying, “Of late, she's been very organised about what she wants to do in lesson which is good.”

7.4 Mindfulness effects on physical awareness and learning singing technique

7.4.1 Introduction

On average, over 50% of teaching in lessons is about technique (Burwell, Pickukp, & Young, 2003). Teachers and students find it difficult to teach and learn vocal technique because neither can see or show much of the physical process happening (Welch & Sundberg, 2002). Students learning voice only have two recourses to immediate feedback: auditory and physical. It is impossible for participants to hear their own voices accurately whilst singing (Howell, 1985), and therefore micromuscular awareness is very useful but it is difficult to develop. Mindfulness practice has been shown to be beneficial in improving interoceptive body awareness (internal organ movement, for example, lungs, abdominals) for a large group of the general public (Bornemann, Herbert, Mehling, & Singer, 2015), and proprioceptive awareness (stimuli from within the body to do with position and motion) for a small group of meditators in comparison to non-meditators (Naranjo & Schmidt, 2012).

Before doing mindfulness, the participants described being confused about the body parts referred to in technical vocal teaching, never having been taught about them, misunderstanding, or finding it hard to locate or even hear what needed changing (U1, U2, U4, U5, U7, U12, U17, C4, C5, C18, C20). They also mentioned that teachers' methods of instruction were sometimes too metaphorical and not based in current vocal science (U4, U7). Clark, Lisboa, and Williamon (2014b) noted that "music students' training is typically based on experience and tradition rather than evidence-based

scientific principles” (p. 298) and, as can be seen in the current research, this is sometimes still the case. Teachers found some students normally quick to learn (U4), and receptive to new information (U6, C3). However, others seemed wary of new technique (U1, U2, U17, C20) or found it difficult because they seemed unaware of their physique (U1, U2, C4, C12, U17, C20) and teachers mentioned being less pleased with their technical progress (U1, U2, C20).

After doing the Body Scan (mainly interoceptive), Mindful Movement (proprioceptive) and Breathing Journey (intero- and proprioceptive) mindfulness exercises (see Appendix W), participants described becoming more aware of their bodies in singing lessons which helped in learning singing technique and improved sound production. Specific body part awareness was reported as improving communication with the teacher, which changed technical learning mindsets, helped in learning posture, breathing support, dealing with physical unnecessary tension, producing vowel shapes, connecting technique together, and improved sound and tone which was noted by teachers.

7.4.2 Improved awareness of physical sensations and learning singing technique.

Thirty-six of the 38 participants reported feeling more aware of the physical sensations of their whole bodies when learning technique in singing lessons after doing mindfulness exercises. Only U11, and U13 mentioned no effect but U11 and U13 did not have singing lessons. Improved micromuscular awareness was also mentioned by all participants learning singing technique

in the original MfS course (Czajkowski, 2013) so, in developing the MfM, item 6 addressed this possible effect, stating, “When learning technique in lessons, I notice new tiny muscular sensations or small changes in sound production as they happen.” Six participants improved by +2 or +3 over the course of the intervention (C3, C6, C9, C15, U6, C19) and they all described this effect in interview but two participants (C13, C14) decreased by 2 which was unexpected considering that during their interviews, they both spoke about improved micromuscular awareness. It is possible that, when face-to-face with the interviewer, participants felt that they ought to have improved their micromuscular awareness. However, it could also be because on the day that they did the second questionnaire, they were feeling tired or were not as aware as normal. Student participants were also observed by their teachers to be more physically aware (U15, C4, C6, C10, C12, C16, C20, C21), with C20 being described as “more *in his body*”.

Participants’ relationship to the teacher, levels of communication and learning of technique were described as being affected by improved body awareness, for example, U17 and C11 felt more willing to try out advice and U5 described taking physical technical advice more seriously. Some student participants seemed to teachers to be more accepting of new technical information where before there had been some resistance (U1, U2, C3, C10, C12, C15, C16, C20), except for C5, whose teacher felt she was too accepting now of her “croony” style of singing and less engaged in trying to change it. Conversely, C16 and C20 were described as far happier to be experimental. Participants said that when their teacher talked, that they were able to listen and respond easier, better, and more efficiently because they were able to

pay attention, feel, and be more mindfully aware of the body sensations involved in learning new technique (U1, U2, U5, U6, U7, U12, C5, C13, C18). Participants said that this helped them be more productive and communicative about the requisite body parts (U2, U6, U12, C5, C18). For example, U6 said,

I try to get here at least ten minutes early so I can do a Breathing Journey or Body Scan and it just does make you feel a lot more grounded, and you pay much more attention to how your body's moving as you sing. Now when my teacher says, "Lift the soft palate," or pay attention to sensation, so the technique can breathe, I find it much more easy.

Being more aware of muscular and body sensations was said to make learning technique quicker (C4, C6, C10, C11, C17, C20, U12), and easier to relocate sensations and feelings later (C17, C11, C4, C20). C21 thought that, although mindfulness seemed to help in focusing on technique, it did not help in learning technique, but C20 said, "I've actually improved more in the last few weeks than I have within the last semester", which was confirmed by his teacher.

Participants said that they felt more body attentive and connected (U1, U8, U14, C20, C Diary Week 1), took more notice of how the whole body felt or worked when singing, the adjustments that they made, and how the parts fit together (U2, U3, U6, U14, C5, C11, C16, C18). Several participants described being aware of their whole body in a way they had not experienced before (C16, C17, C2, C3, C4, C10) where, for example, C3 said,

I really like the mindful breathing – that kind of got me aware, because obviously breathing's such a big thing in singing. It just got me aware of myself and my whole system. That worked really well, as did the mindful movement, because when I warm up, you're meant to warm up everything, but I tend to just warm up my voice. So if I've just woken up, my body's still asleep, whereas if I've done the Mindful Movement then I'm all there, rather than just my voice.

7.4.3 Mindful awareness of specific parts of the voice

Regarding learning technique, Welch and Sundberg (2002) said that “practice of constituent elements in isolation can facilitate conscious awareness and control of basic coordination” (p. 266) in preparation for musical elements to be added as necessary. In a similar way, participants in both this study and Czajkowski (2013) mentioned becoming aware of specific parts of their vocal principles (body parts used for singing, see Table 7.5) but they took this further by reporting that changes happened as a result of doing the mindfulness exercises such as the Body Scan and Breathing Journey (see Table 7.5). This enabled them to be more aware of these “constituent elements” in lessons and practice and enhanced technical learning and assimilation.

Table 7.5 *Vocal principles mentioned by participants that were noticed more after doing mindfulness exercises before singing lessons*

Body parts	Participants
Back	U1, U12, U15, C8
Shoulders	U7, U12, C10
Neck	C4, C8, C10
Mouth	U2, U3, U7, U12, C5, C11, C17
Tongue	U3, U5, C1, C9, C11, C12, C15, C20
Soft palate	U5
Jaw	U5, U10, C10, C11, C15
Abdomen/diaphragm	U3, U5, C2, C5, C8, C12, C15, C21
Larynx	C12, C20
Throat	U5, C10, C17, C21
Ribcage/chest	U4, C9, C11, C21
Pelvic floor	U7
Legs	C5

7.4.4 Posture and vocal breathing support

Several participants said that mindfulness had helped them to be more body aware and improve their posture (U4, U10, U12, U16, C4, C8, C13).

They also found that being more physically aware of their bodies from doing mindfulness before singing lessons had helped them in learning a key vocal technique known by a variety of names such as breath control, breath support, abdominal or diaphragm support, or generically as “breathing”. Current participants described the mindful breathing exercises as helping them to become more generally aware of their singing breath (U1, C3, C7, C8, C16, C20, C Diary Week 5, U Diary Week 3) and U9, C11, C13, C14 found that they were able to relax abdominal musculature to take deeper, more relaxed inspirational breaths which, they said, reduced vocal tension encouraged by

snatched, surface inspiration. Fourteen participants reported more physical awareness of the abdominal breath support musculature, such as the diaphragm and pelvic floor muscles, and felt more in control of their voices as a result (U2, U3, U5, U7, U10, U16, C2, C5, C12, C13, C14, C15, C16, C21). U7, as an advanced vocalist, described mindfulness as helping her to become aware of different types of abdominal support musculature needed for different parts of her vocal range, whereas beginner vocalists, like C4 and C5, were newly learning the technique.

...Then doing support where my singing teacher was like, 'You need to get in the abdominal muscles, you need to do this,' and I was able to be like, 'Oh yes, I know where that is,' because I focused on it. When I could feel the breathing going through it, I suddenly knew where all the little pieces fit together. So it made such a difference. I was able to just locate it, whereas before I was often quite confused about it and I would *think* I was doing it. (C5)

Participants in this study said that mindfulness helped them to be more aware when they were not engaging breath support or were developing bad habits. These were described as being able to be quickly rectified (U7, U9, C5, C20, C Diary Week 2). In comparison, U15 was learning breath control, but chose not to do mindfulness at the beginning of her lessons. Her teacher used a lot of metaphors when teaching technique which U15 liked. For example, to improve breath support she was encouraging U15 to imagine she was a tent pole. When asked what this was meant to achieve, U15 said that it meant, "so I don't move around and stuff", but when asked to explain further answered, "I don't really know how to do it."

Mindfulness exercises before lessons were described by beginner and advanced students as helping with vowel shaping (U3, C5, U1, C1, U16). U3, a beginner singer was aware that she was finding vowel shaping difficult but

was “able to get it right quicker” after mindfulness. C1, an advanced learner, had noticed “little muscular changes” after learning mindfulness and had been able to control her tongue better when using a singing exercise called “Dial-a-Vowel” (see Appendix BA) to develop homogenous vocal tone over the vowel spectrum. She said she was now able to keep her tongue up at the back touching her back teeth (/i/) and shape the vowels whilst keeping her pharynx and tongue a similar length to maintain tone quality.

7.4.5 Vocal tension

Elliott (2010) suggested that unnecessary vocal tension could be released and dissolved with mindfulness. Participants in this study, who were aware of extraneous tension in some of the vocal principles, provided some empirical evidence for Elliot’s suggestion by describing being able to use mindfulness to help locate, relax or release them. Some participants found that their problems resolved with mindfulness exercises, such as back (U12), shoulder (U7, C10), stomach (U14), legs (C5) and chest tension (C9) where, for example, C8 said,

Breathing into a particular part of the body helps to completely release tension in those areas of the body and in other areas as well. I found it really kind of helps to get the tension down in the neck area as well.

One of the technical tension issues mentioned most by participants was tongue root tension (C1, C9, C12, C13). C13 explained that being mindful meant that she was more aware of the smaller muscular details and became mindful when it was gripped and where it should be (i.e. lifted), which made it easier to sing. According to her teacher, the sound “apparently comes across a lot clearer”. The next most reported tense body part relaxed by mindful

awareness was the jaw (U10, C11, C15, C16) where a tense jaw was described by C16 as restricting. Mindfulness, she said, helped her to relax both the jaw where she felt the tension and the mind that was worrying about this tension, which helped her to make a more open sound. Her teacher had also noticed C16's improvement over the course of the intervention, saying,

She's more relaxed in relation to the subject and as a consequence, I think that it has a physical implication in less muscular tension and makes it easier to sing, so she's more consistent.

U12 and U4 felt that the Mindful Movement exercise made them less physically tense, and C2 could feel tension in her body in general, which affected her sound and she reported that mindfulness had helped this issue. C18 said, "You can't sing if you get panicky" and found that mindfully breathing into tension helped her panic less. Eight participants said that they felt more physically relaxed in lessons in general after doing mindfulness exercises (U2, U7, C6, C10, C14, C16, C17, C21).

7.4.6 Sound and tone

Participants reported that being more mindful and focused when learning technique in their singing lessons had the effect of improving the sound that they made. They felt that the voice was more confident (U17, C21) and stronger (U16, C21). C15, U5, and U12 said that they were more aware of their tone colour, and vocal resonance (U5), which helped U12 to find a warmer tone and was described as helping pitching issues (U3, U12).

Teacher Papageno described C12 as developing a freer sound over the duration of the intervention, and C12 had also noticed that his voice had stopped "cracking" saying that being mindfully aware of his breathing

mechanism had helped his support. Papageno also described C20 as starting to produce big, open sounds and C20 said that after listening more mindfully to his teacher that “I’ve improved, and he can hear that.” Papageno said that C12 and C20 had both demonstrated excellent technical improvement due to increased proprioception over the course of the intervention.

C6 was working on tone. She was encouraged in a lesson in front of her peers to “take out a lot of tone that I’d accidentally put on my voice” and to sing with “completely my own tone, and it was hard.” It was easy to slip back when “belting” (see Appendix BA) and she had to project her voice forward rather than back. She said that mindfulness had made her “more aware of my body’s response when they told me to do certain things, so then I could replicate better” and attributed her success to learning mindfulness. Her teacher also talked about feeling worried during this same group lesson as C6 could easily burst in to tears and “was quick to set off.” He said with surprise, “she did it...she didn’t get it right then but in the next lesson she was ‘on that’, a lot more accepting of her own voice.” Once he knew C6 had been doing the mindfulness course, he said that her success was “probably because of this [the training in the lesson] AND the mindfulness...I think it’s both of them.”

7.5 Teacher validation

Teachers primarily identified participants on the improvements that were seen in lessons or performances over the duration of the course. In some areas, teacher and student responses mirrored each other, and in others, benefits were seen by one party on one side in a specific area but not

noticed by the other. Despite this, teachers and participants were in accord that the mindfulness intervention had had a positive impact in the vocal studio.

Participants knew that their teachers were happier as they told them they had improved over the course of the intervention (U1, C5, C6, C18, C20) and C18's teacher told her that she had "miraculously improved" during that time. Papageno had noticed a big change in C12 at Week 6 of the mindfulness intervention.

I think I would connect the technical development and his openness and greater receptivity together and say there is a similar kind of locus point around that single session when I noticed from one week to the next a totally, very measurable transformation.

U9 and C1 had been seen by their teachers to give unexpectedly good performances. Tosca saw a visible improvement in music performance anxiety and performance for C13. C13 agreed, reporting that before doing mindfulness she had "lost any faith" in herself during performance.

Only C5 and her teacher, Lucia, did not agree with each other. C5 reported a mindful improvement in all aspects of singing, but Lucia, seeing C5 become accepting of her vocal technique, said that she preferred her to "battle with the issue" (see Section 7.3.6). Despite this one example, teachers described the intervention as being very helpful and even the teacher above had seen a dramatic improvement in the other student that she identified (C1) who she said had blossomed over the intervention in dealing with over-sensitive self-criticism and was developing visibly improved "poise" on stage. Lucia said, "I can really see that this [course] would have helped her (C1) to do that" and she was grateful for the help.

Despina, who had been a blind teacher participant for all three interventions run at the university including the pilot study, described the MfS course as operating harmoniously in collaboration with her work and despaired that “the ones who need it don’t sign up!” Elvis said of the MfS course,

But I have got to say, the proof is in the pudding with both of those [students], it's not an imaginary change, it's not change that we *want* to be there, it's genuine physical change with both of those students.

Sade, who picked the correct participant from a possible 14 students said, “Annie! It works!” Tosca, Joni, Elvis and Adele, based on their experience of students taking the MfS course, also asked for more information about mindfulness.

7.6 Chapter summary

This chapter has described the effects of the MfS course on singing lessons as experienced by teacher and pupil participants. Singing lessons are repeated week after week, sometimes for years with the same teacher, and it can be very easy for students to slip into “autopilot” mode, thus inhibiting their ability to listen and learn effectively. On the whole, participants engaged closely with the research requirements and they, and their teachers, found a variety of positive effects in their lessons leading to 19 of the 31 eligible participants being identified by their teachers as having done the mindfulness course. Teachers reported a wide variety of improvements in their MfS students and were very positive about the benefit of the course in tandem with their own teaching.

Participants in Czajkowski (2013) found a wide variety of benefits from

doing mindfulness before singing lessons and in a similar, but broader way, current participants reported changes in attitude in lessons, such as being more in the present moment, more focused and aware, relaxed and calm, less negatively self-critical, and more confident. They described improved micro muscular awareness that helped in learning vocal technique, reduced vocal and physical tension, and improved sound and tone. Relationships with singing teachers were often improved: participants said that they found it easier to take criticism from within and without, easier to communicate about technical matters, and their listening skills were enhanced, which lead to a more positive lesson environment and improved learning.

The only finding from Czajkowski (2013) not replicated was the effect of mindfulness on combining individual vocal technique into a cohesive whole, although it was mentioned in the GSMD study. Apart from that, like Czajkowski (2013), this replication has shown that mindfulness may be a highly positive influence in singing lessons at both university and music college. The next chapter describes the reported effects of mindfulness in solo vocal practice and in group and ensembles practices.

Chapter Eight – Mindfulness for Singers qualitative results:

Private, and group instrumental practice.

This chapter details the accounts of the effects of learning mindfulness on student participants in private singing practice, and group rehearsals and ensembles. Doing mindfulness before private practice was attributed by participants to have had a positive effect on general practice mindset, focus, practice structure, body awareness and technique, sound production, and creativity. The effect of mindfulness in group practices as reported by participants covered improvements in focus, calmness and present moment awareness, musicianship skills, and personal and interpersonal skills.

8.1 The effects of mindfulness on private singing practice

8.1.1 Introduction

Practice is important to improve skills for performance (Salmon, 1990) and research suggests that quality practice utilising metacognitive abilities is most advisable, rather than mindless repetition (Chaffin & Lemieux, 2004; Hallam, 2001). Participants in the pilot study (Czajkowski, 2013) described the effects that doing a few minutes of mindfulness had on their private, solo singing practice, improving metacognitive abilities, and producing more quality practice. They reported that they felt more focused, aware and “in the zone” and that their practice was more efficient and effective. Practice length was affected as was organisation and usage, and they also reported finding help in relieving tension and with problem solving.

Current student participants were encouraged to use the 10-minute exercises that they had practised in each week’s session before singing

practices (see Appendix AJ). This gave them the chance to try out all the mindfulness exercises, but towards the end of the course, they were encouraged to use the exercises that had resonated with them the most. All participants, except for U15, C9, C12, and C17, reported doing some mindfulness exercises directly before singing practice. Participants occasionally specified which mindfulness exercises they had used before singing practices as being particular favourites (see Table 8.1). In Czajkowski (2013), Mindful Movement was the most popular exercise before singing practice but breathing exercises in this study superseded this.

Despite U15, C9, C12, and C17 reporting no targeted mindfulness practice before singing practices, all participants reported effects from learning to be more mindful on this activity. They found positive effects of mindfulness on their practice mindset, such as improved motivation and less negative self-criticism. They also reported an impact on the structure of their practices, learning technique and making sound, length of time practising, and dealing with problems in practice. An overview of the thematic findings are detailed in Figure 8.1 and the inter-relations reported by the student participants between the themes are discussed in more detail within this chapter.

Table 8.1 *Mindfulness exercises that the participants particularly used for singing practice*

Mindfulness exercises	Participants or Diary Entries
Breathing (general)	U11, U12, U14, U17 C Diaries* Weeks 1, 6, 7 C1, C2, C3, C4, C6, C7, C9, C10, C14, C19
Breathing Counting	U Diaries* Week 3 U1, U4, U10
Breathing Journey	U Diaries* Week 3 U6, U17 C4
3-minute Breathing Space	U Diaries * Week 1 U1, U3, U6, U13
Mindful Movement	U Diaries* Week 1 C Diaries* Weeks 1, 4, 5 U1, U2, U5, U6, U7, U12 C1, C3, C11, C19, C20
Body Scan	U Diaries* Weeks 2, 5, 6, 7 C Diaries* Week 5 U2, U5, U6, U7, U9, U14, U17 C2, C3, C20
Mindful Walking	U13
Sounds and Thoughts	U Diaries* Week 4 C6

- U = University participants' diary submissions
- C = Conservatoire participants' diary submissions

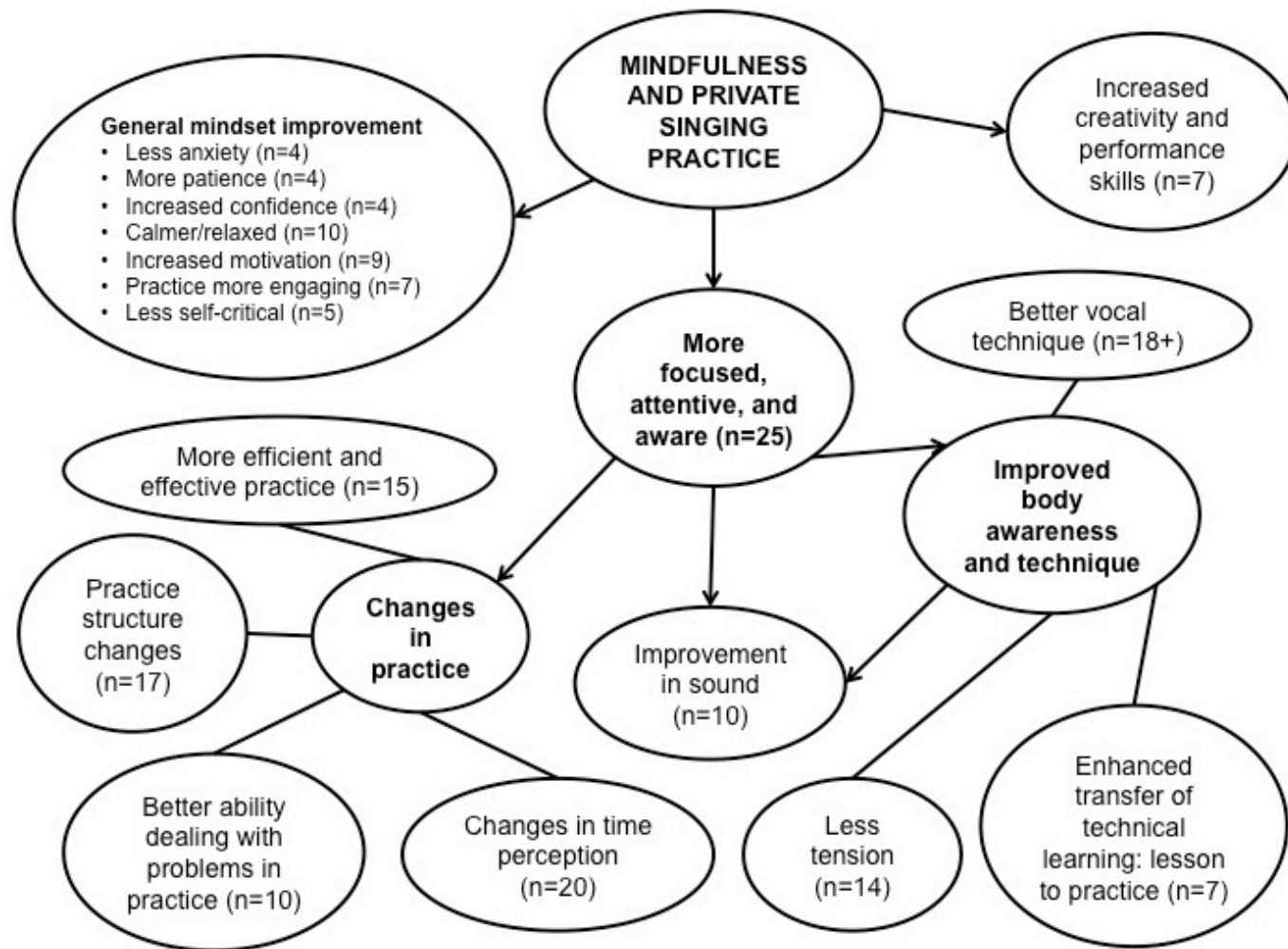


Figure 8.1 Thematic overview of the effects of mindfulness in singing private practice.

8.1.2 General mindset improvement

Participants reported that their mindset generally improved after doing mindfulness before solo singing practice where before they described themselves as moody, bored, or uptight (U5, U6, U7, U9, U10, U14, C1). Participants said that they had less anxiety, stress, or frustration, as evidenced in the U Diaries for Weeks 1 and 6, and the C Diaries for week 2, which was confirmed in interview by U2, U14, U16, and C2. Before learning mindfulness, participants reported feeling impatient and rushing through practice sessions (U12, U16, C2, C9) but U2, U6, U14 and C9 said that they had more patience in vocal practice after doing mindfulness.

Current participants' responses supported and extended Farnsworth Grodd's (2012) suggestion that positive emotional states, including increased confidence, would be a possible effect of increasing musicians' mindfulness by providing some empirical support for their ideas. After doing mindfulness, participants in the current study reported feeling more confident in practice (U8, U13, U17, C18) where U13 said, "I think it (mindfulness) makes me feel more confident which in turn makes me sound more confident". This was also a finding in Newton (2015), who investigated the effects of mindfulness on musical creativity, where one of the three participants observed that her experience of singing was enriched and she described an increase in confidence.

A popular response in the current study was that mindfulness helped the participants to feel more calm and relaxed in singing practice which was mentioned in the U Diaries for Weeks 2, 4, and 6 and in the C Diaries for Weeks 2, 5, and 6. Participants also mentioned this effect in interview (U1,

U2, U5, U12, C6, C7, C14, C17, C18, C21), where U1, for example, had done some mindfulness when practising for her vocal exams saying, “I just do it to calm me down and I find that really helps”.

Participants said that they became more aware of how to practise (U2) and why they were practising (C16, C19). Their motivation to practise that had been described as weak before (C14, C18) improved after doing a few minutes’ mindful exercises (U7, U8, U15, C5, C9, C11, C14, C16, C18, C Diaries Week 1 and Week 3). Gaunt (2010) found that students at the GSMD relied heavily on their perception of how successful their previous lesson was to give them motivation for practice. The MfM investigated the effect of mindfulness in this area in item 10: “My private practice sessions are always affected by how well or badly my instrumental/singing lesson went”. It was hoped that more mindful participants’ scores would decrease in this negatively-worded item over the duration of the mindfulness course, and that they would find that being more mindful would lessen the effect of lesson experience on subsequent practice motivation. Participants C6, U6, and U8 decreased by 2, C13 and C14 decreased by 3 but C21 increased his score by 2. Interestingly, no participants specifically mentioned this finding in interview, although U6 did describe finding it easier to transfer learning from singing lessons to practice, U8 and C14 felt more motivation to practise, and C6, C14 and C21 reported that their practice was more enjoyable now. Other participants felt increased engagement in practice (U7, U8, U10, U17, C5, C8, C11). They also reported being able to notice improvements in practice sessions (U2, U6).

In the interviews, some participants reported being less self-critical and more accepting of mistakes in practice (U4, U14, U17, C14, C18) and were less concerned by others listening nearby or looking into practice rooms whilst they practised (U7, U11, U15, U17, C19). Although U16, U5, and U3 had not found that mindfulness helped with their negative response to this type of situation, U11 summarised those who had benefited, saying, “I guess that the course has created a sense of awareness that-, okay, don’t worry about other people...just carry on”. Item 4 in the MfM also covered this area, stating, “If people can hear me practising, I know it’s irrational to worry and I criticise myself”. In this negatively-worded item, U2, U12, and C18 decreased their scores by 2, and U4 decreased by 3, suggesting that these participants became less concerned by this issue over the duration of the mindfulness course. However, C12 and C19 increased their scores by 2 and C6 by 3, although C19’s response is curious considering that she volunteered information about this area in the interview. She said that she used to think,

‘My flat mates can hear me and I’m going to annoy them by singing etc.’ but as the process went on over the 8 weeks, I was able to be like ‘well at the end of the day we’re all singers and that I need to practise’ so I was able to not think about them during the practice.

Conversely, U4 mentioned that she used to feel worried about friends hearing her practise at home, but as she felt more comfortable practising in the music department, she suggested that it may have just been a change of practice venue that had prompted the change.

8.1.3 Focused, attentive, and aware.

Before doing mindfulness at the beginning of private singing practice, participants reported that they were easily distracted when practising (U4, U7, U9, U10, U16, C3, C5, C6, C10, C11, C13, C14, C16, C18, C19, C20). C5 and C11 blamed their mobile phones, and C20 and C11 said they might be tempted to play the piano instead of singing, which is an activity known as “noodling”. Other participants mentioned feeling mindless or “zoned out” in practice sessions (U8, C7, C18). Whilst investigating the development of metacognition in musicians, participants in Hallam (2001) also reported difficulties with concentration in practice and, as Langer (1998) asked, “How much piano...can one learn while daydreaming about some other activity?” (p. 25).

Like Hribar (2012), and Czajkowski (2013), one of the most common improvements of learning mindfulness mentioned in interview by the participants in the current study was being focused, attentive and aware in singing practice (see Table 8.2). For example, C7 described being more aware of how she felt doing vocal exercises after mindfulness, saying, “it’s the same exercises, but every time I practise it feels different” and that she had never thought about that before. C5 described originally going into the practice room but instead of singing, she would play on Facebook, however, she said,

If I’ve done mindfulness beforehand I’ll go in and I’ll be like, “This is it. I’m doing it.” I can be like, “Okay, I’ve started to wander. Let’s go back”.

Awareness and attention are areas that are particularly targeted by the mindfulness exercises, which are designed to improve these qualities, so a statement addressing this issue was included in the MfM. Item 14 posed, “I’m

easily distracted when practising my voice or instrument” and nine participants decreased their scores on this negatively-worded item by 2 for this statement over the intervention suggesting that they were now less easily distracted.

This finding was also corroborated in their interviews (U6, U8, U11, U15, C3, C9, C13, C15, C19).

Table 8.2 *Participants who reported being more focused and aware*

Participants reported feeling more...	Participants
Focused	U1, U2, U4, U7, U8, U10, U12, U14, U15, U17, U Diaries Week 1, C Diaries Weeks 1, 2, 4, C1, C2, C5, C6, C7, C10, C11, C13, C14, C15, C16, C18, C19, C20, C21
Concentrated	U10, C15
Attentive	U Diaries 3, C5, C11
Aware	U3, U5, U7, U11, U12, U16, U Diaries Weeks 1, 2, 3, 7, C3, C4, C7, C17, C18, C20
“In the zone” or the present moment	U1, U4, U5, U6, U7, U8, U9, U12, U14, U16, U17 C Diaries 1, 5, 6, C1, C3, C11, C15, C19

8.1.4 Changes in practice structure

Participants reported that being more focused and in a better frame of mind after doing mindfulness before private practice had encouraged them to change their practice structure, had an effect on time perception and length of practice time, helped them deal with problems when practising, and, as a result, practice sessions had become more efficient and effective. Participants described doing singing practice every day (U1, U3, C14, C15, C18, C19, C20), some did a few hours a week (U10, C2, C17) and some felt they did not do as much as they should (C12, C13, U7). Reported practice time varied from 30 minutes to an hour (U1, U3, U9, U12, C18, C19), up to 2 hours a day (U17, C5, C10, C11, C14, C16, C20) and up to 3 hours split over the day (U8).

As a result of being more focused and efficient from increased mindfulness, some participants said that they changed what they did in singing practice and reflected more (U6, U16, C20, C21). They described developing more structure and routine (U16, U17, C6, C8), described trying out new songs (C8), did more exercises (C14) or, as C16 said

I'm just doing the bits that I wouldn't have done before, that before I would have left until the last minute and just done badly. Yes, just giving me more motivation to do that, understanding why I'm doing it, if that makes sense.

De Felice (2004) suggested that musicians practising "one measure at a time, one finger at a time" (p. 84) would be able to stay more absorbed in the present if they were more mindful. This suggestion was supported by self-report evidence from participants in the current study. Nine participants, who said that they had previously just sung through their songs in practice, started practise sections of songs in more detail (U1, U2, U7, U8, U17, C1, C5, C8, C20). They also said that they found it easier to plan for future practice sessions (U2, U12, U16).

Doing mindfulness before singing practices also seemed to have an effect on actual and self-perceived practice time for some of the participants (see Table 8.3). This was another finding that mirrored Czajkowski (2013) where two participants found they practised for longer due to feeling more creative and engaged and one participant practised for a shorter length due to being more efficient and effective in practice.

Table 8.3 *Actual and perceived practice time changes reported by mindful singing participants*

Practice time	Participants
Practice time is longer	U2, U4, U6, U12, C2, C6, C15, C16, C19, C20
Practice time is shorter	U10, C5, C11, C13
Practice time seems slower	U6, U9, U10, U12, C11, C16
Practice time seems faster	U7, C1, C2, C6, C13, C14, C15, C18, C19, C20, C21

Various reasons were given for these actual and perceived changes in practice time. The participants who practised longer thought that it could be due to increased enjoyment (U4, U6) and better productivity (C15, C16, C19). Every participant who practised for a shorter length thought that it could be due to improved efficiency, for example, C5 said, "I'm able to do more in a shorter space". De Felice (2004) also theorised that musicians who were more mindful would not need "unnecessary extra hours" of practice due to extraneous mindless practice but this was only true for a few of the participants in this current study. U9, who felt time was longer in the practice rooms, described practising staying in the present moment for each piece in preparation for performance, and U12 described doing the same which made the time seem slower. Six of the eleven participants who felt that practices seemed to pass faster than before the mindfulness intervention, said that practice sessions were more enjoyable. For example, C14 said,

Before I did the mindfulness course, I would just go to the practice room just because I wrote it in my diary that I was going to practise, but now ... I enjoy it so much and I actually look forward to practice.

Bruser, in 2011, suggested that meditation calmed the mind allowing musicians to notice habits such as “pushing ourselves too hard” or “tightening our muscles” extraneously (p.107) and, as she said in an earlier book, “struggle does not produce beautiful music” (Bruser, 1997, p.13). Participants mentioned using mindfulness meditation during singing practices in a similar way as that suggested by Bruser (1997, 2011) and reported that it did help to deal with problems such as stress (U2, C9, C15, C20), creative block (C10), struggling (U2, C4), and being self-judgmental (C18). They felt it helped them to take a step back (U2), have “fresh eyes” (U6), or a “clear head” (C10) and become aware of “absolutely everything” (C4). They described feeling less frustrated (U6, U9, U14) and persevering more (U2, U6, U9, C9, C15), meaning that they did not give up and leave the practice room (U2, U9, C15).

In the current study, one of the most reported effects of being more focused and aware in singing practice as a result of doing mindfulness beforehand was that participants felt that they did more effective and efficient practice (U4, U6, U7, U8, U10, U16, C1, C5, C11, C13, C15, C16, U Diaries Week 3). C11 said, “I feel like my attention and my focus is better and I feel like I don’t have to go over stuff many times”. On the basis of his research with music students investigating the effect of mindfulness on music listening, Diaz (2013) had suggested that “mindfulness practice may serve as a useful means of maximising practice time” (p.15). Reports from some of the participants in the current study supported Diaz’s suggestion. For example, participants described themselves as doing more quality practice (U3, C6), being more productive (C13, C19, U Diaries Week 7), and found it easier and quicker to identify problems (C20, U1, U Diaries Week 4) after doing mindfulness. This

replicates with Czajkowski (2013) and supports research by Hribar (2012) with participant musicians at the GSMD where 3 of the 8 participants mentioned this effect in interview, and where one participant also put down greater practice efficiency to being more mindfully focused. It also supported De Felice's suggestion (2004) (see Chapter 1, Section 1.2.1) that higher levels of concentration from mindfulness practice would enhance productivity and efficiency in the music practice room.

8.1.5 Body awareness and technique

Evidence that the body and the mind are intimately connected is now well accepted and vocal education is an area where this is of primary use and importance (Thurman & Welch, 2000). So it is not surprising that being more mentally focused and aware in singing practices from doing mindfulness exercises also translated to enhanced body awareness, which had an effect on participants practising their vocal technique. The MfM questionnaire stated in item 1, "When I am practising, I pay close attention to how things physically feel or sound as I am playing or singing". Four participants increased by +2 (C2, C3, C7, C9) and U5 and U13 increased by +3 and all these participants mentioned this effect in interview. Only U14 decreased by 2 for this item but in the interview she said, "I'm more aware of how I'm feeling and how I can control my body better and it's a better practice", so it is possible that she felt that she ought to tell the interviewer this information or it is possible that since doing the questionnaire, she had discovered this information in the intervening week. Interviews by the other participants with larger questionnaire quotient increases, however, upheld their questionnaire responses in interview.

At least 18 participants (not including those in the diaries) reported feeling more aware of, or connected to, their body in some way (see Table 8.4). Being more body aware was described as having a positive effect on reducing unnecessary tension, practicing breath control and working on technique, transferring learning from lessons to practice, and working on bad habits.

One of the key techniques learnt by singers is that of diaphragmic or abdominal breath control because it has a big impact on quality of sound, especially for high notes (Sundberg, 1992). At least 18 participants (not counting the diary feedback) reported that being more mindfully aware of their bodies in singing practice had a positive effect on them learning, practising, and using this technique (see Table 8.4). For example, C11 said,

Being aware of the physical sensations...my breathing and the tension in my abdominal area, because I feel like I-, I don't know. I strain myself sometimes. I'm like, 'Why am I contracting everything? No, let go, it's fine, just relax.' It's more little things like that and just pitch and just swooping into the notes, high notes, just supporting everything really well.

Participants found that being more aware of parts of their bodies and micro muscular movements helped them in being more generally aware of what the voice feels like (U12, C9), what the voice is doing (U13, U14) and how to use it (U15, C16). Posture was reported to be improved (U13, U16, C1) and participants said that they became more aware of the usage of their vocal principles such as the jaw, tongue, and soft palate to work on vowel shaping, articulation, and vocal resonance (U2, U5, U13, U16, U17, C1, C5, C11, C14).

One of the major impacts of being more mindfully aware of the body was the effect on physical tension (see Table 8.4). Participants described

becoming more aware of tension in general and specifically in the throat, jaw and neck (U5, C1, C9, C11, C Diaries Week 6), and shoulders and arms (U5, C1, C11, C19, C Diaries Week 1). For example, C10 used it to become aware of unnecessary tensions when using the vocal “belting” technique (see Appendix BA), saying,

I’ve been working a lot with belting and things like that, so for me I can’t physically do it when I tense up, and it just gets squeaky and bit weird. So when I relax all the muscles, I can actually do it and it feels easy and I know I don’t strain my voice. It’s because I-, ‘Oh, it’s hard,’ and I tense up and I tense up and I tense up. So it helps me to just relax and just do it.

Participants also reported finding it easier to transfer information learnt from singing lessons into their practices due to increased micro-muscular memory and awareness (U2, U4, C1, C4, C17, C19, C20). For example, C1 said,

I’ll know that I’ve really taken note as to what’s moving, even in the small muscular parts, and then try and repeat that on my own without [teacher’s name] there, and then I know that I’m doing it right.

Participants found it easier to work on bad vocal habits (U13, C5, C18, C20). C18 discovered that she could correct technique in the moment when her “breathing goes out of whack” and C20 found it easier to become aware of his jaw jutting forward, if his breathing was wrong or if his knees were locking. This supports Elliott’s (2010) personal experience that using mindfulness in singing practice can help retrain bad vocal habits. C18 pointed out that good technique makes singing effortless because you have to focus on the technique or it goes wrong and it is important to be in the present moment to sing properly.

Table 8.4 *Participants' reports of three major effects of mindfulness exercises on physical awareness in singing practices*

Major effects	Participants/Diary entries
Improved body awareness	U2, U3, U7, U11, U12, U15, U16 U Diaries Week 3, 4, C Diaries Weeks 2, 6 C1, C3, C4, C7, C9, C14, C15, C19, C20, C21
Positive effects on learning singing support/breath control	U1, U2, U3, U4, U9, U11, U12, U13, U14, U16 U Diaries Weeks 3, 7 C5, C6, C11, C12, C15, C18, C19, C21
Dealing with tension	U2, U4, U5, U7, U12 U Diaries Weeks 1, 2, 7, C Diaries Weeks 1, 3, 6, 7 C1, C2, C7, C9, C10, C11, C17, C19, C20

8.1.6 Sound

After doing mindfulness before singing practices, participants described developing improved mindful listening skills in regard to their own voices.

Participants reported more awareness of the sound they were making (U12, U16, C2, C6) where C6 had done a lot of work around mindful listening as she was keen to develop her own individual vocal sound in the pop genre. She said,

[I'm] trying to make it so that my tone is my own and not put on, so it's still working with that a bit...I'd say I'm more aware. I think it's because I've improved my musical ear as well, but I'm more aware of whether something sounds a little bit off. I think that also helps because I do a lot of mindfulness around sound.

Participants reported improved vocal sound discernment between "good" sounds and "bad" sounds (U5, U12, U16, C2, C5, C6). For example, C2 described learning the self-perceived difference between making relaxed and

tense sounds, where tense sounds were described as sometimes being useful in jazz for story telling purposes.

Ten participants reported that their vocal quality had improved (U3, U4, U5, U13, U17, C2, C17, C18, C19, C21) where increased awareness and application of abdominal support enhanced self-perceived sound output (U3, U13, C19, U17) and sounds were more confident and less “wobbly” (U13). Teachers also noticed improvements in sound and technique when students returned to lessons (see Chapter 7), for example, C18 said, “Yes, I’ve definitely improved” and Tosca, her teacher, identified her in the blind study because she had been one of her two students who had made the most progress over the intervention.

8.1.7 Exploration in singing practice

A few participants also played with creative, expressive, and performance elements in singing practices in a way that they had not done before learning mindfulness. This supported Farnsworth Grodd’s (2012) theory, which suggested that increasing mindfulness in musicians would encourage more exploratory practice. It also extended Farnsworth Grodd’s theory because the participants in the current study reported in greater depth what these exploratory practices were for them.

Participants, after doing mindfulness before singing practice, described spending time going further than the music on the page (U7, U10) and practising songs in different ways (U7, C17, U Diaries Week 6). C17 said, for example,

It’s more kind of being very aware at the time. That’s my safe time to just play with the songs and how I’m singing stuff.

In a similar way, the three participants in Newton (2015) reported that developing enhanced awareness and focus and cultivating a non-striving attitude from a 4-week mindfulness intervention helped them to develop creativity in their music making. In Week 5 of the MfS course, participants did Mindful Walking and this was linked to stage presence and walking on stage. U13 described taking this mindful learning into her practice sessions for exploration:

I thought that being critiqued on how I do walk from that made me have to be more aware of posture and how I'm standing and what sort of, how I'm presenting myself and I felt that trickled into then as I'm practising.

MfS participants also described spending time discovering their own individual "sound" (U12, U17), and practising playing with performance elements such as emotion (U9, U12), and character (U2).

8.1.8 Section summary

This section has described the results detailing the reported effects of learning mindfulness on solo vocal practice. Those who suggested that mindfulness may have an effect on musicians' instrumental practice (De Felice, 2004; Elliott, 2010; Farnsworth-Grodd (2012); Hribar, 2012; Steinfeld & Brewer, 2015), posited that there would be a variety of beneficial effects such as improved concentration, efficiency, goal directed thoughts, positive emotional states, confidence, perseverance, motivation, and enjoyment, and these, and more, have been evidenced in both Czajkowski (2013) and this replication study.

One of the clearest findings from this thematic analysis is that doing mindfulness before practising singing has reportedly had a positive effect on participants' mindset going into a solo vocal practice session. From that point on, a cascade of beneficial effects on mental awareness, focus, efficient practice, and improved practice structures seemed to fall. Increased body awareness reportedly helped participants to improve their vocal technique, listening skills, sound, performance and creativity in practice. Participants described using mindful strategies that helped them when frustration and stress entered the practice room, and, maybe most importantly of all, they described themselves as beginning to enjoy practice more, leading them to be more motivated to practise again (U3, U4, U6, U7, C4, C5, C11, C14, C16, C18, C19, C20, C21). The next section describes the reported effects of learning mindfulness in group ensemble practices and rehearsals.

8.2 The effects of mindfulness on group rehearsals and ensembles practice.

8.2.1 Introduction

Performers' musical, social, and organisational skills in rehearsal and ensemble practice are important for any successful ensemble performance (Ginsborg & King, 2012; Lim, 2014; Murnighan & Conlon, 1991). These skills are "crucial in enabling musicians to collaborate in pursuit of their collective artistic endeavours" (Lim, 2014, p.307). Pulman (2014) researched the types of highly prized qualities that music educators wanted to encourage with ensemble band classes to prepare students for professional life: self-confidence, intrinsic motivation, communication/negotiation, self-initiative,

resourcefulness, and conflict management. Music ensembles are sometimes used as work groups' examples in business research (Langer et al., 2009) and mindfulness has been shown to have a positive effect on such relationships and skills in business research (Lomas et al., 2017).

Participants were encouraged to do mindfulness exercises every day and specifically before musical activities such as rehearsals and ensembles. Ensembles in which participants said they had contributed are reported in Table 8.5.

The types of mindfulness exercises that participants identified using as preparation were varied: 3-Minute Breathing Space, Mindful Movement, Body Scan, Breathing Journey, general breathing exercises, and Sounds and Thoughts. Participants described doing breathing exercises during rehearsals to help focus or deal with difficult moments (C4, U Diary Week 7). They also wrote in the diary about doing mindfulness after rehearsals (U Diary Week 3, and 4, C Diary Week 7) where it was reported to help relaxation after a difficult rehearsal, or to be more objective, and helped consolidate the information learnt in the rehearsal. There was little report of the effects of mindfulness on rehearsals and ensembles in Czajkowski (2013) due to the scope and extent of that report, but participants talked more extensively about this area in the current study.

Table 8.5 *Rehearsal and ensemble experiences described by MfS participants in interview*

Ensembles	Participants
Small chamber choir	U2, U4, U5, U8, U9, U10, U11, U13, U15, U17
Hall Choir	C1, C2
Ensemble Choir	
Chamber Choir	
Clothworkers Consort	
Project Choir	
Leeds Baroque	
Acappella group	
Opera Society	U4, U7, U13, U17 C1, C5, C14, C18, C20
Band (with instrumentalists)	U5, U12, U16 C11, C2, C3, C4, C6, C7, C8, C9, C11, C13, C15, C16, C17, C18, C19, C21
Duet	U16

Rowbury (2009) felt that one of the aspects of a good chorister was self-awareness and attentiveness, and music education researchers have been exploring different ways to improve attention, attitude and performance outcomes in ensemble rehearsals (Brendell, 1996; Dunn, 1997; Price, 1983). Brendell (1996) investigated attentiveness during rehearsal warm ups for 33 high school choral rehearsals, Dunn (1997) tested different types of teacher reinforcement on attentiveness in ensembles using high school choirs, and Price (1986) researched the effect of three types of conductor task presentation for a symphonic band in rehearsals. In all cases, researchers found that keeping students actively engaged meant more on task behaviour, such as attentiveness to the conductor with less off-topic communication.

After doing mindfulness, participants in the current study reported being more focused and in the “zone” in rehearsals and ensembles, and becoming more self-compassionate and empathetic. They said that this positively affected musical collaboration, musical listening, vocal technique and sound, and performance elements. Participants also reported that it had a beneficial effect on relationships with others both musically and personally, and helped improved confidence, and rehearsal experience. Figure 8.2 provides a thematic overview diagram followed by a more in-depth analysis of the relationship between findings as reported by the participants.

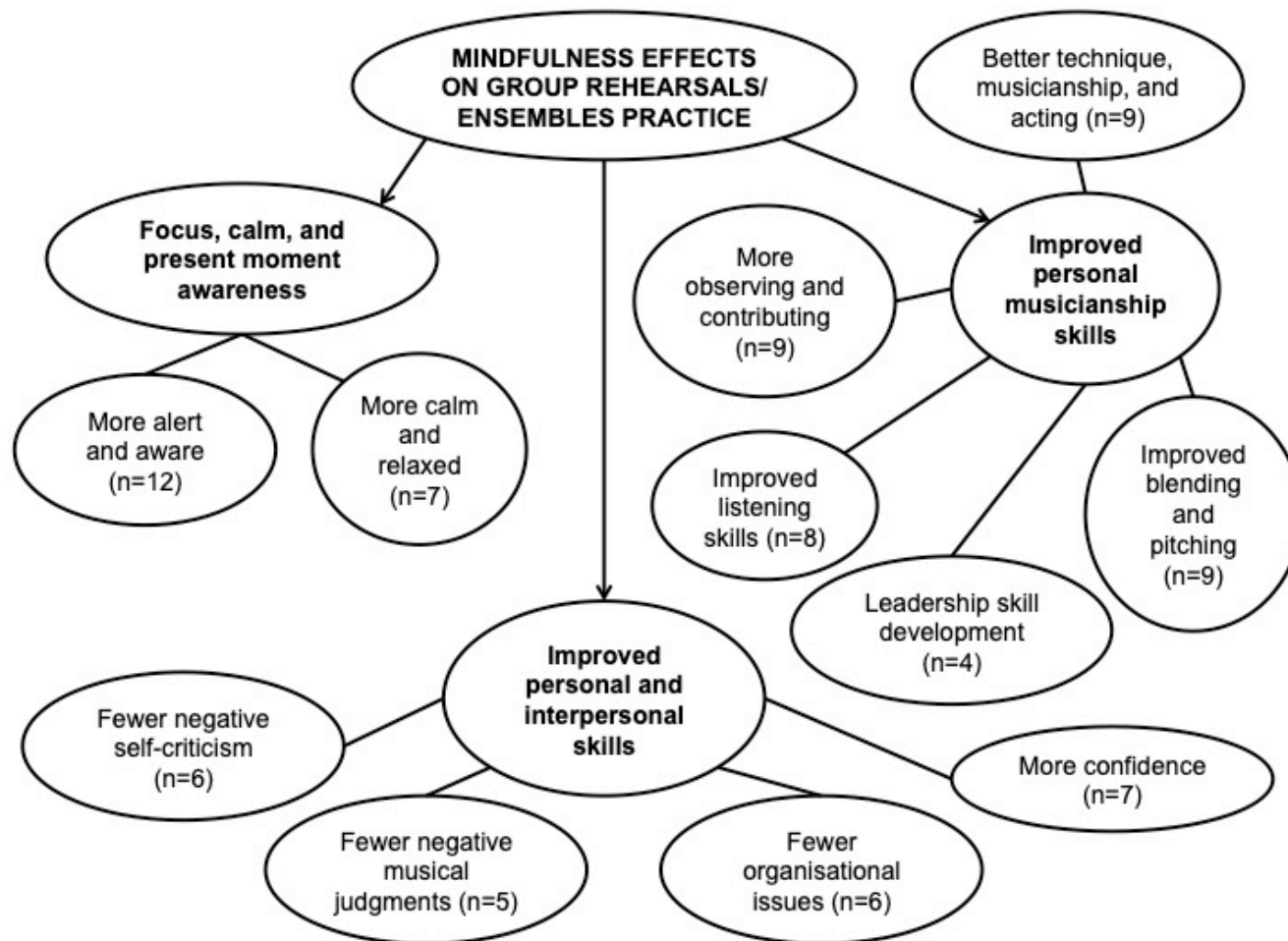


Figure 8.2 Thematic overview of the effects of mindfulness in ensembles/rehearsals group practice.

8.2.2 Focus, calmness, and present moment awareness.

Pulman (2014) found that rehearsals could have an effect on attention where one of his student participants admitted, “We can get fatigued over time and you lose focus...nothing changes and it's so monotonous,” (p.303). After preparing by using MfS exercises, a large proportion of participants in this current study mentioned feeling more focused, alert, or aware in rehearsals (U2, U4, U7, U8, U10, U13, U16, C2, C11, C12, C15, C19, U Diary Week 7, C Diaries Weeks 6, and 7). Participants also described feeling calmer or relaxed in rehearsals and within ensembles (U8, U13, C1, C2, C11, C18, C21, U Diaries Weeks 3, and 7, C Diary Weeks 1, 6). Participants reported that being more mindful in rehearsals helped them to be less stressed in general (C1, C11), created a good “mindframe” for the rehearsal (U8, C Diary Week 7) and provided a nicer environment (C5). Participants felt more positive (U2), were more productive (C19) and enjoyed rehearsals and ensemble sessions more (U4, U8, C16).

8.2.3 Improved musicianship skills

A common finding for the MfS participants was that being more focused and calmer improved their listening skills (U2, U7, U10, U13, U16, C11, C15, C19), which is listed as a key quality for good choir members in Rowbury (2009). Several participants reported that they could decipher more, their listening was more precise, or that it was easier to identify different musical sounds within the texture better (U2, U7, C11, C15, C19) and they that felt their improvisations had improved too (C11, U7, C Diary Week 7). U13 said,

I think it helped a lot with listening skills with being able to hone in with different people and to different voices and to intervals in particular and especially in opera where it's an awful lot of 'soloist sings a bit' and 'chorus react and adds to it.'

U16 said that improved mindful listening helped her when setting electronic equipment volume levels for her band, which was something that Pulman (2009) specifically mentioned as a problem in student pop music rehearsal ensembles.

Lim (2014) found that an important part of being in the highly successful professional vocal ensemble, The Swingle Singers, was the ability to listen and "tune in" or "blend" (balance their sound with others). MfS participants described that improved listening skills helped them to be more aware of their voices within a musical texture and to blend better (U2, U7, U10, U13, U16, U17, C12, C13, C18) with improved pitching accuracy (U7, U10, U13) which Biasutti (2013) described as an "indispensable performer skill".

Participants also noted that being more focused and mindful helped them to watch the conductor of ensembles more closely (U7, U10) or observe how their band looked when they played (C19). They said that they felt more aware of the ensemble (U7), were more able to contribute confidently (U2, U17, C15, C16), and felt better at interacting and collaborating (U10, U13, C11). For example, U10 said,

Yeah, I think being generally more aware of things has made me able to listen to other parts more...I watch the conductor much better. Yeah, my accuracy has gotten a lot better. I think, therefore, the inflections and things have improved as well.

Biasutti's (2013) "indispensable performer skills" also included good technique and sound. MfS participants noticed being more physically aware of their body parts used for singing during rehearsals and with ensembles (U11, C2), which improved technique such as breath control (C2, C17, U Diary Week 7), noticeably improved vocal projection (U Diary Week 2), and made singing high notes easier (C2, C17). Participants reported being more aware of rhythm, timing, and cues (U7, U10, U16), dynamics (U16), and felt better at acting and improvising in their groups (C11, C20, U7, U17, C Diary Week 5).

Four participants volunteered for a musical leadership role in their respective institutions (U2, U4, U5, C2) and, through mindfulness, U2 realised that she had not been interacting or listening to the group she conducted. Biasutti (2013), when studying professional conductors and performers' rehearsing strategies, felt that listening skills were important for leaders to spot mistakes more quickly. Being more mindful, U2 and U4 both said that their listening had improved and mistakes in rehearsals were recognised quicker. Biasutti (2013) also found that orchestras preferred conductors who gave clear and ordered instructions. After mindfulness, U4 described that she explained and articulated musical concepts better and U5 said,

It's just being able to give clear instructions for warm ups. Stretching right up on your tip toes then flopping down, feeling each vertebrae, kind of like something that might not have particularly occurred to me before doing this course.

8.2.4 Improved personal and interpersonal skills.

Criticism can arise in a variety of ways, from being overly and negatively self-critical, musically negative about others in rehearsals, and through being judgmental of peers in rehearsal organisation. Personal and interpersonal skills are very important for successful ensemble performances and rehearsals (Ginsborg & King, 2012; Lim, 2014) and although institutions hoped that encouraging band rehearsals and ensembles would teach social skills to students, there were still improvements that could be made (Pulman, 2009). These improvements included the recognition and evaluation of individual and group contributions to the process, promoted a pleasant and workmanlike rehearsing environment, included activities that foster specific rehearsal skills, and provided opportunities for students to lead.

Participants described themselves before doing mindfulness as being self-critical, particularly about making mistakes in rehearsals or in ensembles, and imagined criticism from others or worried about letting colleagues down (U2, U4, C5, C16). They said that the mindfulness course had helped them to deal with imagined criticism more rationally and to realise that everyone makes mistakes (U2). As a result, they reported feeling less self-critical, less anxious, less negative, and more comfortable in rehearsals (U2, U4, U16, U17, C5, C16, U Diary Week 4).

Negative musical criticism from peers can create tension between band members during rehearsals (Pulman, 2009) and a positive group dynamic is key to success. Before becoming more mindful, MfS participants described themselves as being negatively critical of other ensemble members sometimes due to others' lower musical skill or experience levels (U4, C4,

C18) or their subjective expectations of others' commitment and music practice (C4, C5, C18). For example, U4 said of an unauditioned chorus that she was in,

There are completely varying levels of experienced singers and not complete novices, but not as experienced singers, and I think I had a tendency to get a little bit frustrated when people weren't doing things exactly right...I think the mindfulness has helped me just accept that actually we're not doing it because it's professional, we're doing it because we all enjoy it and I absolutely loved Magic Flute. It was one of the best weeks, it was so fun.

In a similar way to U4, C5, C18, and U10 chose to become more accepting of others in ensembles. C5 summarised, "Now I'm just like, 'That's fine. That happens. We'll get it next week', I'm just more able to deal with it".

Organisationally, good choir members have punctuality, commitment and consideration for others (Rowbury 2009), and students in pop bands want equal contribution and commitment from everyone (Pulman, 2009).

Organising students is well known to be a difficult experience despite modern technology. Participants found that organising rehearsals with their peers could be incredibly frustrating and described themselves as upset, angry, and stressed when colleagues demonstrated little commitment (C1, C11, C5, C7, C18, C19). Only C7 reported not trying a mindful approach to this problem and therefore had found no help and there were no indications that mindfulness had improved participants' actual organisational skills. Other participants, however, described becoming less controlling (C19), more accepting, hopeful, and empathetic with peers (C1, C11, C5, C18, C19) and calmer as a result (C1, C11, C5, C19).

Ginsborg and King (2012) discovered that performers in professional duets confidently asked and gave more opinions than their student

counterparts in rehearsals suggesting that this is more advanced rehearsal behaviour, and confidence in rehearsals is desired by both institutional tutors and students (Pulman, 2009). In their interviews, some MfS participants reported feeling more confident as a result of becoming more mindful which helped with dealing with rehearsal nerves and anxiety. This improvement tended to demonstrate itself through participants speaking up, and/or contributing more to the rehearsal process (U2, U4, U7, U17, C9, C15, C16, U Diary Week 2). Like participants who displayed behaviour changes as a result of taking part in an ACT/MPA intervention (Juncos et al., 2017), U4 found the confidence through mindfully dealing with nerves and anxiety to start conducting an ensemble, and C16 said

Just yesterday, I brought in one of my own tunes that I wrote, which was really scary, but it was fine. I really enjoyed doing it...I think it's just being more aware of it's okay to feel anxious but it just doesn't need to happen or there's no actual reason for it apart from you thinking either, 'I'm not good enough,' or, 'This isn't good enough,' but there's no reason for that and now I feel like, 'Oh, I am good enough.'

The MfM item 7 explored communication in rehearsals and ensembles, stating, "It's hard for me to find the words to describe to others what I think or feel in rehearsal or practice sessions". The scores of participants C1, C8, C19, and U2 decreased on this negatively-worded item by 2 suggesting that they were finding it easier to find words to express themselves in rehearsals. Only C14 had increased their score over the course of the intervention but, oddly, like C6 and C13, who decreased by 3, she said nothing about this aspect in the interviews. Other interviewees' reports correlated with their questionnaire score where C1 noted that she had become less frustrated with others in rehearsal organisation, C8 felt his musical ideas were "a lot more true", C19

said that she could communicate better with her band, and U2 discovered that she spoke up more confidently in rehearsals.

8.2.5 Section summary

This section has described the effects of learning mindfulness on ensemble practices and rehearsals. To be an effective, successful, professional vocal ensemble, Lim's research (2014) with the Swingle Singers suggested that excellent personal, and interpersonal skills, such as self-awareness, restraint, interpersonal awareness, and mutual sensitivity, are needed. Not all participants highlighted the effects of mindfulness in rehearsals and ensembles with some not mentioning them in the interviews at all (U6, U12, U14, U15, C3, C6, C10, C14), or that it had little effect (U1, U9). However, the other twenty-eight participants volunteered a variety of positive effects from being more mindful through focused attention training, and developing self-compassion and empathy for others. Participants said that they felt more focused in rehearsals and "in the moment" which improved their listening skills, musical collaboration, and impacted positively on technique, and performance elements. They said mindfulness had improved their personal and interpersonal skills by helping them to become increasingly aware of those around them, more realistic regarding self-criticism, develop restraint in criticising peers musically, and more sensitive to others from an organisational point of view. Improved mindfulness skills have been reported by the MfS participants to have had a marked effect on them as participators, organisers, and leaders in classical, jazz, and popular music ensembles and bands musically, socially, and organizationally. This, they said, led to more

positive rehearsal environments, confident and happier students, and, in some cases, improved performances (see Chapter 9, Section 9.3.7). The next chapter describes the effects of learning mindfulness on performance elements, such as music performance anxiety and aspects of performing on stage.

Chapter Nine – Mindfulness for Singers qualitative results:

Performance

9.1 Introduction

This chapter reports the effects of teaching mindfulness to student singers in the area of music performance. The mindfulness course addressed performance through presentation of research, group discussions, and a workshop. In the mindful performance workshop in Week 7, participants did a selection of mindfulness exercises, performed an unaccompanied song in front of the group, and were then subject to constructive criticism from the trainer and the peer group whilst being instructed to breathe and remain mindful. The entire session was recorded and each participant received an individual MP3 of their performance and criticism for comparison with their memory of the event.

Music performance anxiety (MPA) was of concern to many participants (see Section 9.2.1). Butzer et al. (2015) reported that participants in their study found that yogic breath control techniques immediately before performances were most effective in reducing performance anxiety. Therefore, participants in the current study were also encouraged to test the effects of at least 10 minutes of pre-performance mindfulness exercises as close as possible to the beginning of each performing activity.

In interview, the participants spoke generally about their use of mindfulness for performance, the types of performance that they did, and the styles of music they performed. The subsequent effects of mindfulness on performance that they reported could be gathered into two major themes: effects on music performance anxiety, and effects on aspects of music

performance. As regards music performance anxiety, they spoke about the positive effects of mindfulness on acceptance or reduction of physical symptoms, changes in mindset, improvements in vocal technique, and better audience perception (see Figure 9.1). Mindfulness also had an impact on music performance experience and participants' responses are gathered under the following themes: increased present moment awareness on stage; changes in time perception and improved memory retention; enhanced performance elements (communication, listening, creativity); increased ability to deal with the unexpected; improved feedback, and enhanced enjoyment (Figure 9.2). These findings provided further support for research from the pilot study (Czajkowski, 2013), where participants had reported the benefits of mindfulness in performance in similar areas: music performance anxiety, mental mindsets, physical awareness and vocal technique, creativity, audience perception, and dealing with the unexpected in performance.

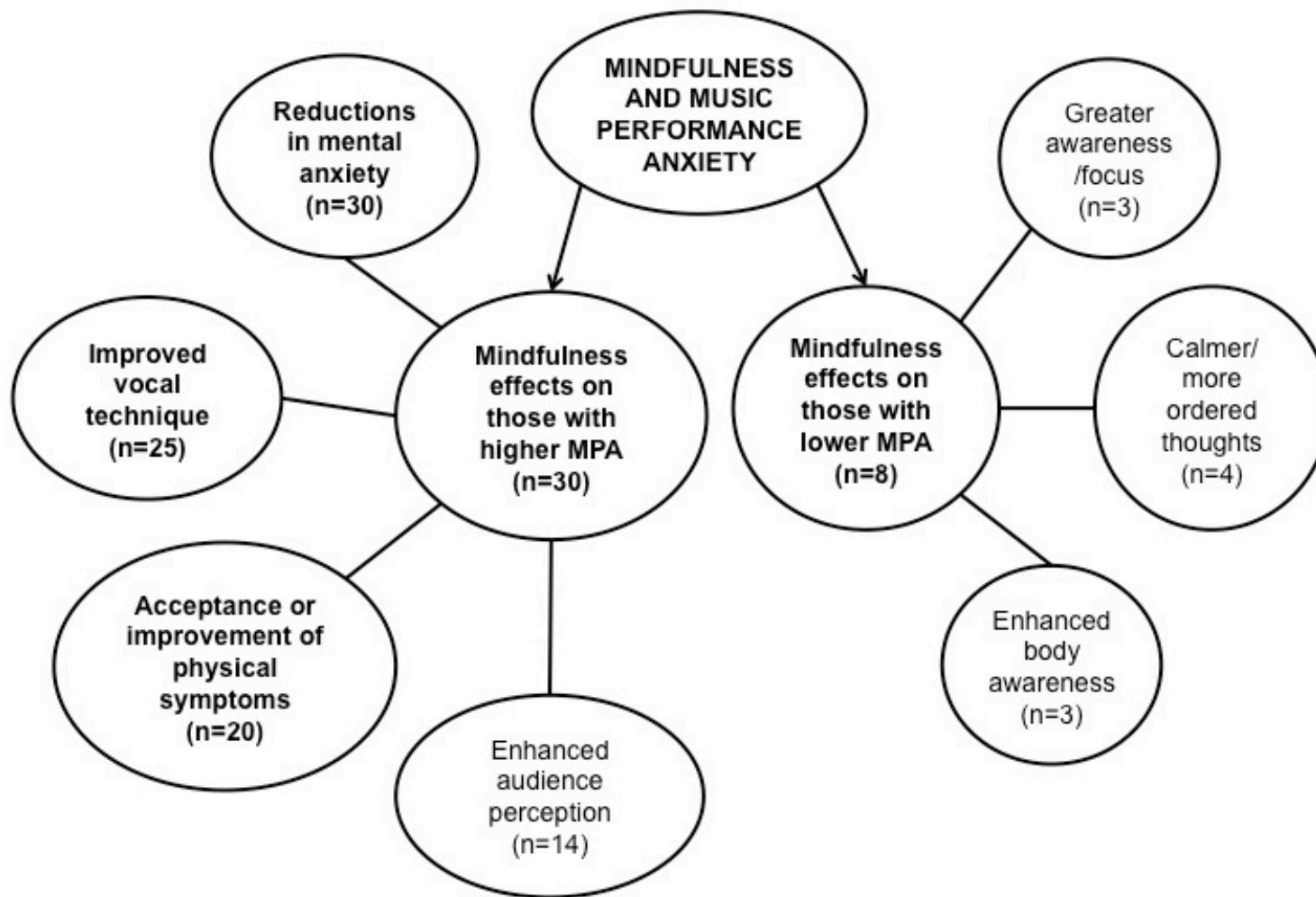


Figure 9.1 Thematic overview of the effects of mindfulness on MPA.

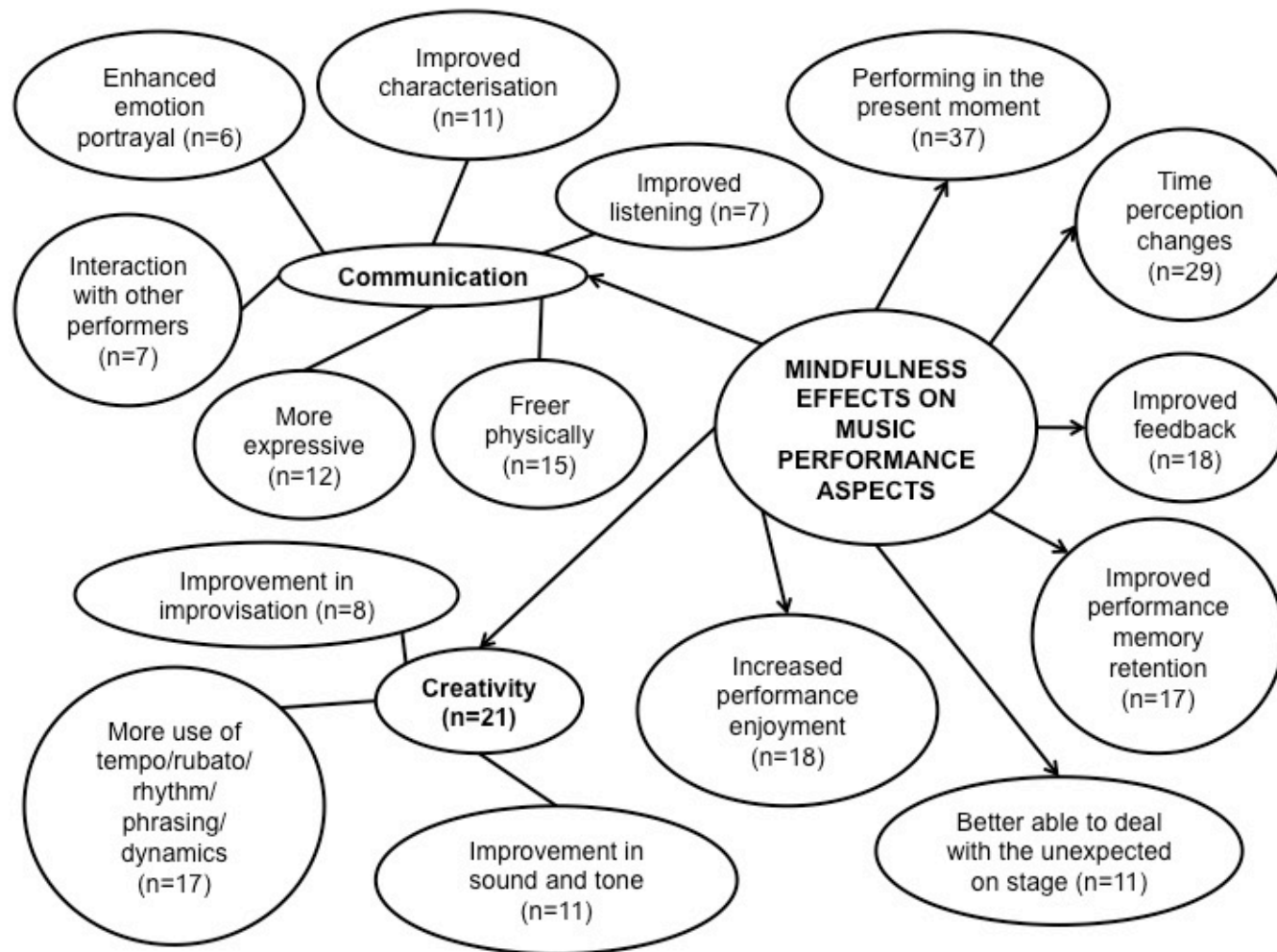


Figure 9.2 Thematic overview of the effects of mindfulness on performance elements.

9.1.1 Mindfulness practice, performance opportunities, and music styles of the MfS participants

Participants described testing the mindfulness exercises in a wide variety of performance opportunities. Everyone had the opportunity to try them out in Week 7 of the MfS course as part of the MfS Course but even before this point many participants reported that they had already started to use them. They tested them out as soloists and ensemble members both inside and outside their institutions. Internally, they were used for conservatoire *Performance in Context* sessions, university performance classes, and before technical, recital, and year-end performance examinations. They also used the mindfulness exercises in the following arenas when performing in public: final performance examinations, opera productions, evening and lunchtime concerts, recitals, showcases, gigs, open mic sessions, and even a fashion show. They were used for auditions, recordings, weddings and funerals, both locally, and nationally. Participants mentioned performing a variety of musical styles: classical (including opera, operetta, classical recitals, and church music), musical theatre, popular music styles (including indie, pop, rock, own compositions), and jazz and blues (Table 9.1).

A few participants sang in more than one style in more than one type of venue. Some accompanied themselves, some worked with bands, and others performed with orchestras and pianists. Some were doing and had done professional gigs but the grand majority of performing was unpaid.

Thirty-six of the 38 participants described engaging in mindfulness exercises before performing activities with breathing exercises reported as being the most popular. As well as doing the traditional mindfulness exercises,

participants also described putting suggestions from the psycho-education into practice. For example, they watched and listened to others perform mindfully: it had been suggested to the participants in Week 7 that, as well as doing mindfulness exercises in performances, they could also choose to focus their attention on others performing in that present moment. They also reported choosing to engage in positive mental talk (U2, C1, C5, C10, C11, C17). Another group reported focusing on their physical motion (physicality) to assist concentration prior to performance. The different types of exercises used are detailed in Table 9.2.

Two participants did no mindfulness before performances. U16 had been too ill to perform that term and U15 said, "I found pretending that the performance wouldn't happen was more easier than accepting that it would happen" and used other techniques like relying on her singing teacher's support and drinking a glass of wine.

Several participants also used mindfulness during performances whilst they were on stage (U4, U6, U14, C4, C7, C10, C14, C17). They used breathing exercises (U4, U14, C7, C14), or took a moment between songs (C10).

Table 9.1 *Styles of music performed by MfS participants*

Classical	Musical Theatre	Pop	Jazz
U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U13, U15, U17 C1, C5, C9, C12, C13, C14, C18, C20	U11, U15, C18	U4, U5, C3, C4, C6, C7, C8, C10, C11, C15, C16, C17, C19, C21	U5, U12, U14, U16 C2, C8, C9, C16

Table 9.2 *Mindfulness exercises used by participants prior to performance*

Mindfulness exercise	Participants
Breathing (unspecified)	U1, U4, U5, U6, U7, U8, U11, U12, U13, U17, C1, C2, C4, C6, C8, C9, C10, C11, C13, C14, C15, C17, C18, C19
Breathing Counting	U1, U4, U14, C1, C3, C5, C12, C16
Breathing (3-Minute)	U1, C19
Breathing Journey	U4, U9, U13
Body Scan	U2, U3, U5, U6, U7, U8, U10, U11, U14, U17, C1, C3, C4, C5, C9, C10, C13, C16, C18, C21
Mindfully watch/listen to others perform	U12, U14, C1, C7, C13, C16, C18
Positive mental talk	U2, C1, C5, C7, C10, C11, C14, C17
Mindful Movement	U12, C5, C11, C20
Focus on physicality	C7, C13, C17
Exploring Difficulties	C1, C19
Mindful Walking	U8, C4, U10
Sounds and Thoughts	C18, C20

9.2 Mindfulness and music performance anxiety

9.2.1 Introduction

Music performance anxiety (MPA) affects many musicians both physically and mentally, and these aspects are often related and negatively cyclical in their operation (Kenny, 2011). Cornett-Murtada (2012) suggested that “music performance involves an intimate dance between the mind and the physical body” (p.16) where a challenge in one area would create problems in the other. However, De Felice (2004) suggested that not all MPA is bad if it does not disrupt performing or unduly disturb the performer’s mental well-being, but thought that mindfulness might help those who are deeply affected. Participants in this study were not formally measured in levels of MPA but although nearly every participant, like those in Czajkowski’s study (2013), mentioned having some level of performance anxiety, some described being more deeply affected than others.

Participants self-identified their levels of MPA and their data fell into groups when discussing the effects of mindfulness on performance (Table 9.3). Thirteen participants specified performance anxiety as one of the main reasons why they chose to do a mindfulness course (Group A). Another 30 described performance anxiety symptoms in some detail during the interviews (Group B) and the final eight did not verbalise many symptoms or mindfulness effects in this area (Group C). In summary, fewer than 50% of the university cohort demonstrated a higher severity of performance anxiety symptoms compared to over 85% of the conservatoire contingent. This result is perhaps unsurprising because the expectation of the conservatoire students and staff is that they are training for, and will be performing as a lifelong career,

whereas a performing career is not necessarily the expected career path for university students.

9.2.2 Mindfulness and the physical symptoms of MPA

Chopin described feeling choked, paralysed, and struck dumb by music performance anxiety (Kenny, 2011) and participants in the MfS study also described debilitating physical symptoms of their MPA. Participants reported a variety of symptoms: nervous sensations in the stomach (C10, U4) feeling sick (U1, C4, C12, C16), feeling their hearts racing (U8, C5, C16), being sweaty (C1, C7, C10, C4), being energy-less (U17, U10), and breathlessness (C12, C14) “Tension...” said De Felice (2004, p.79), “tends to collect in the shoulders, hands, neck, vertebral column and jaws”, and this was confirmed by participants who felt substantial tension in these parts of the body (C14, U6, U9, C7, C1, C10, C11, C14). The most frequently reported symptom of MPA was some sort of shaking (U6, U9, U10, U12, C3, C4, C6, C14, C16, C18). Hands were mentioned the most (U14, C7, C11, C14, C15, C20, C21), then legs (C1, C2, C11, C12), and C21 had a “ridiculous amount of adrenaline pumped” to his head, which made his head shake and hurt.

Table 9.3 *Music performance anxiety: Participant group assignment*

Did mindfulness for MPA	MPA symptoms mentioned in interview	MPA miscellaneous
Group A	Group B	Group C
U1, U7, U8, U13, U14, U15, C1, C6, C7, C12, C21	U1, U4, U6, U7, U8, U9, U10, U12, U13, U14, U15, U17, C1, C2, C3, C4, C5, C6, C7, C10, C11, C12, C13, C14, C15, C16, C17, C18, C20, C21	U2, U3, U5, U11, U16, C8, C9, C19

After discussing the reasons for MPA symptoms in the MfS sessions, and experimenting with mindfulness exercises, participants found a variety of beneficial effects. They reported feeling generally more bodily relaxed (U1, U12, C5, C7, C10, C14) and physically more sturdy or grounded (U1, C2, C3, U10). Using mindfulness did not take away all the symptoms. Although C10 and C13 reported that they stopped experiencing stomach churning, U14 and C12 still described having the odd “butterfly” (U14) but felt that it was better. C21 felt that doing the Body Scan completely took away his shaking head caused by a painful rush of adrenaline and other participants reported reductions in leg and hand shaking (U13, C2, C13, C18).

De Felice (2004) suggested that performers should do Dr. Kabat-Zinn’s Body Scan to be aware of muscle tension with MPA in order to be able to release it. Participants in the current study who did the Body Scan, and other mindfulness exercises, reported feeling less tension in their bodies (C1, C3, C7, C14) whereas other participants said that they were able to notice tensions in their bodies, feel them, breath into them and watch them go (U1, U7, U12). One group assimilated mindful acceptance and developed

psychological flexibility when faced with MPA symptoms that would not go. They described non-judgmentally accepting, allowing, and observing MPA symptoms such as body shaking and tension (C3, C7, C12, C16, C17, C20, C21) and C12 even said he started to enjoy the sensation. This was a similar finding to Juncos et al. (2017) where the seven music college participants who took part in an Acceptance, Commitment Therapy (ACT) course for MPA (see Chapter 1, 1.2.1) found that instead of eliminating MPA, the mindfulness skills helped them to defuse and accept the symptoms which subsequently improved performance experience.

9.2.3 Mindfulness, MPA, and vocal technique in performance

Music performance anxiety symptoms often affect vocal technique and performance. Participants reported problems with breathing, support, posture, vocal shaking, tension, and general feelings of lack of control. In singing, the term “breath” can apply to both inspiration and expiration; “support” is the controlled expiration of breath using the diaphragm, intercostal and abdominal muscles. A “controlled breath” would, therefore, also be support. “Control” however, could mean control over one or a variety of vocal principles (e.g. the tongue, soft palate, the jaw).

MPA was described as making participants feel breathless (U1, C5, C13, C14, C16, C20), and experience lack of control (U9, U17, C5, C14, C20). Others reported lack of diaphragmic support for singing (U8, U17, C5, C14, C15, C16, C18). Vocal tone and sound was said to be disrupted (U8, U13, U17, C20), and participants felt that they were tense (C1, C15, C18, C20). None of the lower MPA group mentioned any of these technical issues.

Mindfulness exercises had a variety of beneficial effects on vocal technical issues affected by MPA. Participants described feeling generally more in control (U1, U14, U17, C1, C4, C13, C14, C17, C18, C20), which U17 found particularly helped when performing cadenzas. The mindfulness course is based around the awareness of sensations of breath and body to bring participants into the present moment so, expectedly, improved bodily awareness of the singing breath was a popular finding. Participants discovered that their breathing had improved (U6, U9, U17, C13, C14, C20). Participants reportedly became more aware of their breathing technique (U1, U4), and the movement of breath through the body (U4, C5). They also mentioned thinking, focusing, or concentrating more on breath in performance (U7, C1, C12, C20). They described being able to regulate breath (U12, U8), and were able to correct breathing if they noticed problems (U12, C18, C20). They also reported that their vocal support improved (U1, U8, C5, C13, C21), and they were more conscious of the support musculature (C15, C18, C20). For example, C14 said,

When I do breathing exercises, I feel like it calms me down somehow so my hands aren't as shaky and my breathing comes down and I can actually support - which is, I guess, the most important part of singing.

Participants also described becoming sensorily mindful of other parts of their body when singing (U14, C3, C20): C14 relaxed her eyebrows when singing and defocused from her jaw and tongue to avoid tensing them up, conversely C15 focused on her jaw and neck to observe tension there and release it.

With better breathing and support, participants reported improvements in their singing experience with vocalising seeming easier, more relaxed and

gliding (C2, C4, C14, C18). They also mentioned a change in sound quality to a more solid (U13), stronger (C15), earthy (C18), stable, richer, and clearer tone (C20) although U1 reported hearing no difference. With better breath and support on stage, participants said that they found it easier to prepare for high notes (U12, U17, C1) and that they did not need to be fearful of high pitches anymore (U8, C14).

9.2.4 Mindfulness and mental anxiety

Kenny (2011) noted that there are many ways that humans can give themselves mental anguish and Driskill (2012), when researching the symptoms, causes and coping strategies used by singers with MPA, noted that negative mental self-talk is well known. Like participants in Czajkowski (2013), current participants compared their pre-mindfulness distressing mental thoughts and audience perception with post-mindfulness experiences.

Before mindfulness, participants with self-reported higher levels of MPA described feeling mental panic (U1, U7, U17, C3, C5, C18) and lack of confidence (U8, U15, U17). Some reported feeling hyper aware (C6, C7) but most felt unfocused or lost concentration (U1, U8, U9, C4, C5, C7, C12, C16). U10 also described losing concentration but as a low MPA sufferer, she said this was because she was too relaxed. Participants said that they worried generally about things possibly going wrong on stage (U1, U8, C4, C5, C16) or about everything to do with performance (C5, C6, C7, C14, C17, C20). They were highly self-critical (C11, C15, C17) and very concerned about making mistakes on stage (U1, U4, U8, U13, C2, C4, C5, C10, C14, C16) where C5 said, "I'll just be worried about everything I'm going to do wrong".

Participants described inner turmoil (U4, U7, C1, C13, C17) They worried about being underprepared (U13, C1, C4, C11, C18), about illness or pain (C5, C6, C10), or had negative thoughts and painful memories from the past (U1, C11, U10). The only element discussed in Czajkowski (2013) that was not mentioned in the current study was a fear of performing new repertoire.

The mindfulness course and exercises encouraged participants to focus into the reality of the present moment and apply self-compassion to their experience. After the course and exercises, for example, C11 said, "I'm aware we create these things in our minds" and reported feeling more focused and calm, changing her negative mindset. Like Czajkowski (2013), mindfulness was reported as reducing self-criticism, increasing confidence, and improving mindsets for performing which enhanced the performance experience. In comparison to their pre-mindfulness performance experiences, thirteen of the higher MPA affected participants in the current study described feeling more confident, grounded or in control on stage (U4, U7, U8, U9, U13, U14, U15, U17, C2, C3, C11, C13, C14, C16). Eighteen participants in this study felt more aware, focused, lucid or concentrated (U4, U7, U12, U14, U17, C2, C3, C4, C5, C6, C7, C10, C11, C12, C15, C16, C20, C21) but three participants sometimes felt too focused in performance and wanted to lose themselves in the music more (C1, C7, U6). Fifteen participants, like seven of the eight participants in Czajkowski (2013), described feeling calmer, more relaxed, content and more comfortable on stage (U1, U4, U7, U14, U17, C1, C2, C6, C7, C11, C14, C16, C17, C18, C21).

Mindset changes triggered by developing mindfulness were wide and varied. Participants described developing more acceptance of the reality of

going on stage and performing (U1, U4, U6, C16, C18) and felt that it was acceptable to be nervous (U12, C1, C10, C14). Mindset changes could also be ongoing; for example, C1 said,

I still have this link to it in my head where if I start to get more and more anxious or worried about something, I straight away think "stay in the present moment" so even though I haven't been practicing a lot of the actual set tasks and stuff, I have been sat before and just given myself a few minutes of just thinking "what can I hear, what can I smell, what can I see RIGHT now" rather than worrying in my head and I think that's definitely been a constant thing for me that I never would have thought of before I did the course.

Participants found more of a balance between catastrophe and not caring (U8, U10), felt the seriousness of the event had been reduced (U1, C1), or that their thoughts were more rational or in perspective (U7, U17, C1, C16, C17) where C16 said, "I think it's more having an awareness over the fact that I'm not rubbish, it's not helping me in any way to be thinking that". They discovered that their thoughts in general were more ordered or more gathered (U7, U15, C1, C20). Many participants reported having fewer negative thoughts or had replaced negative thoughts with positive thoughts and experiences (U1, U7, U12, U14, U17, C1, C2, C4, C11, C14, C16, C17). This led to fewer worries in general (U1, C13, C14, C15, C16, C18). For example, U4 said,

I feel like I can feel my breath going through my body and I think I always feel-, I always go back to a feeling of being grounded, because I'm quite aware that when I overthink things, get nervous. It feels like everything's up here rather than it just kind of-, I think I can much more easily get to a point where I'm like, "Okay, I'm being held by the ground. The ground is here, my breath is here. These are my constants."

The MfS course was designed to encourage participants to have more self-compassion, in a similar way that they would have compassion for a

friend, and to be more accepting of themselves and their experiences.

Participants described becoming less self-critical about their past or worried about making mistakes in the future and more accepting of the present (U1, U4, U8, C2, C6, C14, C16) as C16 said in her longitudinal interview,

I feel before I did any mindfulness, I was thinking more 'this is really bad, I'm really bad' but I don't think of that as much ... it's just doing your best really.

Three participants in Czajkowski (2013) had mentioned becoming less self-critical of themselves before and during performances and so this was also included in the MfM questionnaire. MfM item 15 states, "Before performing, I tell myself that I shouldn't be thinking the way I'm thinking and criticise my feelings" and this issue was also brought up in interview by the participants. On this negatively-worded item, U2 and U15 decreased by 2 where U15 said her mind was quieter and U2 was less in her "own little world". C1 and U3 decreased by 3: C1 said in her interview that it was now "okay to be nervous", and U3 described having a more settled mind. C4, C8, C10, and U11, though, increased their score on this question by 2. C8, C10 and U11 reported no improvements but they did not report a problem either, however, C4 said in her interview that mindfulness can help "take away so much guilt" pre-performance so it is unsure as to why her response had increased in the post-questionnaire. It is possible that becoming more aware of thought processes through learning mindfulness can illuminate previous thinking that had been mindlessly accepted before.

On the whole, participants reported similar findings to those in Chang et al. (2003), who found that performance anxiety was decreased in the meditation group of nine music students in higher education in comparison to

ten controls (see Chapter 1, Section 1.2.1). Driskill (2012) had also noted the possible benefits of yoga and meditation on MPA induced mental anguish, which has been supported here by data from the MfS participants. However, the current study takes these findings further by providing far more detail and depth in terms of what particular aspects of MPA were reduced by learning mindfulness and also what the subsequent effects were for these particular participants.

9.2.5 Mindfulness and audience perception

In a similar way to Chopin, who apparently felt highly intimidated by audiences and pronounced himself as “not fitted to give concerts” (p.1, Kenny, 2011), audience perception promoted a large amount of mental anxiety for some MfS participants. Fear of audiences is not rare, for example, in LeBlanc, Jin, Obert, and Siivola (1997), types of audience presence had a physiological and psychological debilitating effect on performing student musicians. Twenty-seven high school musicians performed under three conditions: firstly with no audience, secondly with just one researcher, and thirdly with 4 researchers, a peer group, and participants knew they were being recorded. The participants’ self-reported anxiety rose significantly under each condition but heart rate measurements, which remained static for the first two conditions, rose significantly under the third condition.

Participants in the current study reported being adversely affected by audiences (U15, U17, C1, C10), where some were scared if they could even see an audience (U1, C7), and many were concerned about what the audience thought of them and their singing (U1, U4, U8, U17, C1, C6, C7,

C10, C14, C20). Types of audience caused anxiety where some participants said that they disliked performing in front of peers, family, and friends (U8, U14, C5, C14, U11) and preferred strangers (C4, C5, C7, C11) and some preferred family and friends in the audience (U17, U6). Unsurprisingly, participants felt nervous singing in front of examiners or audition panels that were writing when they sang (U1, U4, U7, U12, C2, C4, C5, C11, C15, C17, C20). Size or type of venue concerned participants: U13 disliked performing in big settings and C7 disliked large audiences, but others preferred large audiences (C17 C11, C4, U4, C20). C5, U4, and C21 disliked performing in intimate events and some participants preferred performing in ensembles rather than as soloists (C1, C8, C16).

Training in the mindfulness course was designed to encourage participants to consider audiences, audition, and examination panels in a different way suggesting that it is actually impossible to know what people really think or why they acted in a certain way until given written or verbal feedback. Loving Kindness exercises (Appendix W) and reflective group discussions were included to encourage a mindset change where participants could view their performance as a gift to audiences, feel the audience as an integral and welcome part of the performing process, and to remember their own experiences and thought processes as audience members themselves.

After this training, participants reported less concern about audience perception (U4, U8, U15, U17, C5, C14, C17, C20, C21). U4, C5 and C17 said that they almost forgot that the audience was there, as U4 said,

With the Blue concert I don't think I've ever enjoyed a performance more than I did with that one. I sang the Mermaid's Song (like I did in the mindfulness session) and I just really got involved with the piece and I was not thinking about anything about what the audience were thinking and I just really enjoyed singing that and I felt so in the moment.

Other participants, like those who felt more audience aware in Czajkowski (2013), described feeling far more comfortable observing their audiences and using eye contact (U8, U17, C4, C7, C17). Six participants felt happier engaging and communicating with audiences during performance (U17, C1, C11, C15, C17) where, for example, U17 said,

I was very afraid of audiences, very afraid and then when I was on stage I realised that I was able to look at their reactions as well so I would get feedback from them if I was doing well, if they were understanding me, so I was more confident and more calm to actually communicate with them whereas before I wouldn't.

C13 attributed her MPA improvement to the MfS course, C18 described feeling able to volunteer for performing opportunities, which was something she had never done before, and although some others still felt a little nervous, they described themselves as having the “right amount of nerves” (U10), and C4 said, “even when I’m afraid, it’s still okay”.

9.2.6 Physical and mental effects of mindfulness on those with lower levels of MPA

None of the participants with lower MPA mentioned any technical problems affected by MPA except for C19, although U2 and U3 did report that being more mindful increased body sensation and vocal control. C19, although she does not get particularly nervous when performing out of college,

reported having a bad experience in one of the *Performance in Context* classes where she was given a lot of criticism, saying,

I definitely had to use mindfulness in that situation...otherwise I would have cried. I had to just take a second and breathe but do it under scrutiny because people could see I was welling up and then I just had to focus on in the present moment and the present time and think 'this is all going to benefit me for the future' so then doing that, it helps me take the criticism better and helped me to retain the information better because I took myself out of the situation for a second, realised why I was actually in that situation, and then I was able to put myself back in it.

The participants in Group C (see Table 9.3, p.282) also discovered positive effects of doing mindfulness on their mental state on stage in the following main areas: increased confidence and control (U2), increased awareness or focus (U2, U3, C9), feeling calmer (U3, U11, C19) and more ordered thoughts (U3, C8, C19). However, none of them mentioned reductions in their perception of the seriousness of the events, in negative thoughts, or in worry. Neither did they mention acceptance of performing or developing a more rational perspective of the audience but they had not expressed these areas as problems as a result of excessive MPA either.

9.2.7 Section summary

As expected, learning mindfulness seems to have had a positive effect on those participants who self-reported higher levels of MPA. Ortiz-Brugués (2009) researched the systems affected by MPA and discovered that there were somatic, emotional, and cognitive challenges which encouraged unwanted behavioural manifestations. Butzer et al. (2015), who have been studying the effect of yoga on elite student musicians at the Tanglewood Music Centre since 2005, discovered that mindfulness, amongst other effects,

“reduced the cognitive and somatic symptoms of music performance anxiety” (p.196). In general, MfS participants who gave more severe reports of pre-mindfulness MPA and who engaged in mindfulness exercises before performances, also reported a reduction in MPA or described a greater ability to accept the symptoms as necessary for performance. They said that learning mindfulness had a positive effect on dealing with somatic, physiological, emotional and cognitive expressions of MPA. Further more, their reports of their experiences advanced the research literature by explaining the ways that learning mindfulness had changed their perception of the audience, and had a positive effect on performance behaviour and experience.

9.3 Mindfulness effects on aspects of music performance.

9.3.1 Performing experience before mindfulness

There was little data given by participants about remembered experiences of their performing on stage prior to mindfulness. This may be because many described themselves as experiencing pre-mindfulness performances in a blur (U2, U16, U17, C4, C6, C7, C9, C14, C15, C16), having no memory of what they had done afterwards (U1, U6, U8, U9, U12, C15, U17, C2, C5, C13, C14, C16) and, as a result, not knowing if feedback reflected their performance (C5, C14). Those with higher MPA said that if they remembered anything that it would be the bad things (U1, U15, C18) or crying after every performance (U8, C18). C9, as a member of the low MPA cohort, reported that performances were a blur, but she said,

I wasn't nervous, it was just-, that was an autopilot thing. I knew all my songs in my set, I'd sing them, but now I'm definitely more there.

Those who did talk about performances before mindfulness described feeling tense (U1, C4, C14, C18) with rigid eyebrows and stiff arms and they struggled with expressing emotion and character (U9, U17, C1, C4, C7, C12). Various participants felt that they performed on autopilot (U12, C4, C15), or went through the motions (U8, C19), and C16, a jazz singer, said,

Then especially going on to trading [trading solos: a jazz improvisation technique] and before I would just not listen to what the other person was doing, I'd just be doing nonsense, completely unrelated, and now I'm really listening... I would just shut off myself and just not...and even if I knew I had to do a cue, I would not do it because I was embarrassed or nervous but now I'm able to have more command.

Several participants described giving less than their best on stage (C1, C4, C14, C16, C19, U8, U9, U10) using words like "switched off" (U8), "glaze" or "gloss over" (C1, U10). Participants said that they were not able to employ performance elements such as dynamics or vocal effects (C1, C6, C4, C18), and found that nerves could take over at the end (U8, U14). MPA Group C participants had more to say on the issue of performance than technique but their responses clustered around half-hearted and lack lustre performances rather than making mistakes or being tense.

9.3.2 Performing in the present moment

Since doing the mindfulness course and targeted exercises pre-performance (see Table 9.2, p.279), every participant except U16 said that they had performed on stage in the present moment to a certain extent.

Participants, like those in Czajkowski (2013), felt that they were more zoned

in, grounded, “in the space”, or were able to stay present with the music more on stage (U1, U6, U7, U8, U14, U17, C1, C3, C7, C9, C19). U6 said “it was remarkable, because I am aware, and I’m not usually” and C13 said, “I wouldn’t say that I’m completely there, but definitely more than before”. As De Felice (2004) said, “Nobody enjoys listening to an automatic performance” (p. 78) and statement 8 in the MfM addressed the issue of performing in the present moment: “I suspect that I usually perform on automatic pilot”. For this negatively-worded item, 6 participants decreased their score by 2 (U14, C3, C6, C9, C16, U6) and C19 by 3. This suggests that these participants had learned to stay in the present moment more on stage over the course of the intervention. The score provided by C19 was corroborated by her in the interview:

When we sang at the Uni ... I was able to concentrate on the present moment and it made it easier to relate the song to people...so yes, it's definitely helped me.

As well as being more aware, participants said that they noticed when they were mindless (C1, C14), and they made fewer mistakes (U6, U11, U12, C4, C13, C17) like forgetting words (C13, U11).

The exceptions were U16, who had been ill for a long time and did no performing, and U15 who chose not to use the techniques but still reported performing in the present moment. When asked, “When you are in the present moment on stage, what do you do with your performance?” she stalled for six seconds and said, “Well, I can notice when I worry that it will get much worse...and I just tell myself to stop being silly” and she reported being unable to produce on stage what she had prepared in the practice room. Maybe if

U15 had chosen to do some mindfulness or meditation before performing, she might have found some positive or negative effects.

Clark, Lisboa, and Williamon (2014a), investigated the thoughts and perceptions of music students in performance, and discovered that feeling out of control could affect performance quality and enjoyment. Participants who used mindfulness before performances, however, reported feeling more in control on stage (U2, U3, U5, C1, C3, C5, C11, C14, C17, C19) and U2 said,

I was aware more of my face and my eyes. I saw someone else's performance class and they just looked really alive in their eyes so I tried to use that in the performance. It was really bizarre because I was telling myself to do it while I was performing which was kind of nice because I felt I was in control of it.

They also felt more engaged, interested, energised and involved (U1, U4, U8, U14, C3, C4, C7, C14, C17, C18) in their performances where C14 said,

I just felt like I owned it! I mean, not like the whole performance but I could at least show, I don't know, 70 or 75% of what I am capable of doing instead whereas when I'm nervous, I can't control it. I don't know, 30% maybe I can control but not more than that.

Like participants in Juncos et al. (2017), confidence levels had risen for U6 (who reported a stronger announcing voice), U10, U17, C14, C17 and C18. C18 said, "I don't look like I don't want to be there."

9.3.3 Time perception and memory retention

Kabat-Zinn (2016) explored the time perception changes that mindfulness engenders in daily life and suggested that mindfulness "reduces the chaos and increases the order of the mind" (p.1239), which meant that one's experience of time would slow down. Many participants in the current

study similarly reported mindfulness-induced time perception changes where time on stage felt longer or songs felt slower than they were (U1, U6, U8, U9, U10, U12, U14, U17, C2, C3, C4, C5, C6, C8, C9, C10, C11, C12, C14, C16, C17, C18, C20), for example, C18 said, “It felt like forever, I’m not going to lie to you!” However, participants’ reports in the current study extended the literature by explaining what they felt they did with this “extra” time.

Participants reported that they had time to think and plan ahead to set things up (U10, U12, C4, C11) and time to think more about performance elements (U1, U8, U12, C2, C17). Some participants (C2, C7, C13) felt that, rather than the time seeming slower, performances now felt like they “go at the right speed” (C7). Only C21 and C5 described time on stage as seeming quicker after mindfulness than before.

Ramsburg and Youmans (2014) explored the effect that mindfulness had on memory and knowledge retention in the higher education classroom with three studies that randomly assigned participants to a 6-minute mindfulness exercise or sitting quietly before lectures. In each study, the mindfulness participants remembered more from the lectures than the controls although the authors were still unsure as to the mechanisms that created these changes. They suggested it could be due to improved self-regulation. Participants in interview in the pilot study (Czajkowski, 2013) mentioned their mindful performance experiences as being less automatic, slower, and clearer so item 12 on the MfM addressed this issue: “Performances always seem to have gone by in a big blur”. Nine participants decreased their mindfulness scores (indicating less blur) on this question post-intervention by 2 (U1, U6, U10, U12, U13, C9, C15, C17, C19). Only U8 increased her score by 2 but

she reported differently in the interviews saying, “it's all still a bit of a blur but definitely less so than it was before”. In the interviews, participants spoke of experiencing better memory of their performances (U1, U2, U6, U8, U12, U17, C1, C2, C5, C7, C9, C13, C14, C15, C16, C17, C18) including six from the nine whose scores decreased in the questionnaire. Findings from the current study may have some possible explanation for the memory improvement evidenced in Ramsburg and Youmans (2014) and extend the literature in this matter. They suggest that it may be due to time perception changes engendered by mindfully improved present moment focused awareness. However, as Ramsburg and Youmans’ (2014) study was entirely measured by questionnaires, the participants in their study were unable to inform the researchers of any other possible mechanisms that were not measured by the quantitative scales.

9.3.4 Communication

Communication is a key element of performance but different singers in different genres have different goals in performance. Classical music participants reported a keenness to embody characters. This was not so important for those doing popular and jazz type music who were more interested in the quality of their improvisation both using vocal elements and pitch. However, all groups were interested in communication, stage presence, and emotional expression.

Participants described an improvement in their communication as a result of being more mindful on stage (U9, U14, U17, C3, C4, C7, C10, C11, C14, C15, C16, C17, C18, C19) where U9 said,

It's helped me convey my emotions better and my characterisation, so, so much, because that's something that I struggled with before and...Just being able to convey the character in the first place is quite a big deal for me, but yes, particularly with the words, with regards to the words as well. That's helped a lot with doing this and reflecting the words in my body language and some movement and stuff as well.

Participants noticed a greater ability to portray their characters or the character of the piece on stage (U1, U2, U4, U7, U8, U9, U17, C2, C5, C12, C19, C20, C Diary Week 2) where C5 said she realised in the moment that she could represent her character in her vocal runs, "which I hadn't done in any of my performances leading up to my exam, so that made a big difference". Participants mentioned concentrating more on portraying emotions (C5, C8, C10, C14, C18, C21, U9) where C18 said, "It used to make me feel uncomfortable, but now...the emotion just seems to pour out and it's just nice". Participants described feeling more expressive on stage and were increasingly able to act (U4, U9, U14, C2, C4, C7, C12, C13, C17, C18, C19, C20), and participants mentioned using more facial expressions (U3, U12, U14, C2, C5, C7, C14, C18). They reported feeling more physically aware of posture, hand positions, body expression and having heightened senses on stage (U1, U4, U9, U12, U17, C1, C2, C4, C5, C7, C10, C11, C17, C18, C20). They felt freer to do physical movement in performance (U4, U9, C1, C5, C7, C10, C18) and felt less tense (C18), and mentioned being able to move arms and hands (U1, U17, C7, C18) and to use the performance space more in the moment (C1). C17 said,

It's nicer, because it means I'm more with the people, with my band as well. So I find myself dancing with people on the stage as well, which I wouldn't before. I do have a really, really lovely group, so they're receiving it as well, it's not like I'm doing something and them just standing there, so it's nice to have that interaction.

In a music listening and mindfulness study, music students told Diaz (2013) that their attention improved, they were able to focus without distraction and listening was improved. In a similar way, participants in the present study also reported better music listening skills on stage (U3, U12, C9, C11, C16, C17), helping them to emulate other instruments more (C9, C16, C17) and to be aware of other musical elements happening around them, incorporating these into their improvisations (U12, C9, C16). They said that they were more conscious of interaction and communication both musically and verbally with other musicians (C5, C16, U14, C2, C9, C17), where C16 said,

I was able to communicate with the band and I was really bad at that before and I think that has to do with being aware and accepting where I am.

She concluded that this was one of the most important things she had learnt from mindfulness.

9.3.5 Creativity and expressivity

Some MfS participants said that they were pleased to be able to transfer their practised performance into the performance venue (U8, U12, C1, C4, C7, C16, C20) where C20, for example, said,

I think when I was preparing, I went over the words quite a lot and made sure I knew exactly what they meant so that I could, so it could be something I was thinking about when I was performing. I guess I made myself really aware before hand what characters should be feeling and I guess I could be more aware and I guess that comes across through the performance.

However, performance creativity is enhanced when a performer can bring something fresh to the music. Oyan (2006) had suggested that mindfulness might reduce MPA symptoms and increase creativity. Langer et

al. (2009) studied the effect of mindfulness instruction on orchestral participants' creativity and discovered that the instrumentalists introduced small changes leading to a rendition that was more enjoyable to perform and hear (see Chapter 1, Section 1.2.2). Many MfS participants' responses concurred with the existing literature but took that research further by reporting the specific small changes that they made. Participants reported a new ability to play with musical elements and do novel things on stage that had not been practised beforehand (U4, U9, U10, U12, U14, U17, C1, C2, C3, C4, C5, C6, C7, C8, C9, C11, C12, C14, C17, C18, C21), such as improvising or embellishing the music or changing physical movements in the moment (U12, U14, C1, C2, C5, C6, C9, C12). Some participants found that they did this unexpectedly or it surprised them (C1, C2, C5, C6, C12), including classical vocalists. C12, for example, said that during singing "Pastorello d'un povero Armento" from Handel's *Rodelinda* that

I improvised a little bit, which was a bit weird. Just like a few ornaments. I didn't expect that. Afterwards I was like, 'So why did I do that?' but my pianist, he said, 'What happened there?' I was like, 'Oh, was it bad?' He was like, 'No, it was brill.' I was like, 'Oh, great. Fair enough.' I don't know, it's quite life-changing.

C2 described suddenly deciding to perform her own compositions barefoot saying it seemed more natural and it felt like "a decision in the moment". Four participants thought that being more creative on stage was a work in progress (U1, U6, U9, C4) where they hoped to become more ambitious in the future. The types of elements that they reported playing with in the moment were tempo (U4, U14, C3, C9), rubato (C2, C4, C8, C11), rhythm (U12, C17, C21) and phrasing (U10), but the most popular was dynamics (U12, U14, C1, C2, C4, C7, C8, C9, C11, C12, C14, C18, C21). Participants described playing

with eye contact (U14, C7), musical expression (C4, C12), and word painting and shaping (U9, C3, C4, C14, C17, C18, C21). Participants in Czajkowski (2013) also reported playing with expression, dynamics, and vocal tone.

Current MfS participants also mentioned that they were more aware of their sound and tone on stage (U5, U12, U17, C1, C4, C6, C10, C15, C16, C17, C19), and being more vocally flexible (C10, C17). They described playing with note onset and offset (C4, C6, C15, C17, C19) (see Appendix BA), and their vocal tone (C6, C15, C16, C19) in the moment on stage.

9.3.6 Dealing with the unexpected on stage

Some participants described experiences on stage that were unexpected such as making a mistake themselves or something going wrong in the performing environment. When things go wrong in performance, performers can often be thrown by the event or once it has occurred, think back to it while singing, which can encourage present and future mistakes. As part of the mindfulness training, participants were introduced to the concept that it is possible with mindful awareness to observe reality and change normally automatic assumptions and behaviours in the moment before they become fixed.

Participants reported that by having trained their attention with mindfulness exercises that they responded better to adverse unexpected events in performance by being able to refocus on the task at hand quickly, not letting irrational thoughts intrude whilst singing. This was also noted by participants in Czajkowski (2013), so MfM item 11 addressed this issue: “If something unexpectedly happens when I am on stage, I notice it without

reacting and easily carry on performing". Some participants increased their score by +2 over the course of the intervention (C19, U3, U8, U13, U15) but participant C3 decreased by 2. Interestingly, none of these participants mentioned this improvement specifically in their interviews but other participants did.

After mindfulness, when participants made mistakes themselves on stage such as missing high notes or forgetting words (U1, U17, C15, C17, C18, C20) they reported that it did not bother them at the time as they accepted the problem had happened (C17) and moved on. As C20 said,

I messed up one of the ornaments slightly so...it just passed me by and I didn't really think about it ... it's normally the sort of thing that I cling on to and it would affect the rest of my performance.

Other participants had things happen to them in performance such as other people forgetting words (U7), incorrect cues from other singers (U17), a props problem (C1), not being able to hear the monitors (C4), an alarm going off in an exam (C5) and a guitarist being out of tune (C11). They admitted that this would normally affect them but that they felt calm, dealt with the problem quickly, or that it did not bother them, and they were able to carry on without the performance being affected.

9.3.7 Feedback and enjoyment

Participants also gave information about the feedback they received from their performances. Eleven participants had good or very good results from their university (U1, U2, U8, U10) or conservatoire (C1, C2, C4, C5, C16, C18, C20) examinations and, as some participants had not received results by the time of the second 3-month interview, this may have been more.

Improvements covered better communication, more facial and body expression, increased emotion presentation, more confidence, stage presence, characterisation, and breath control. For example, the examiner noticed and congratulated C5's performance when she stayed in control through the alarm and she gained an excellent report. Unfortunately for U12 and U15 the feedback was less positive but U12 was not discouraged and said that she would keep on gigging despite the marks. Teachers' performance feedback was also good for U17, C13, C14, C18, where C13's teacher told her she had noted that she looked more confident and C18's teacher said to her, "You've just miraculously improved".

Other participants were given positive feedback from outside sources such as friends, parents, and musical colleagues after giving, what they felt to be, mindful performances. Similarly to Langer et al. (2009) where an audience was able to tell the difference between a mindful and a non-mindful performance (and preferred the mindful rendition), it may have been possible for external observers to have noticed improvements in the MfS participants' more mindful performances. Band members and pianists complimented C11, C15, and C12; and friends were reported as seeing an improvement in performing mindset, character, voice, and stage presence for U4, U14, U17, C2, C5, and C7. U17 deputised professionally for an opera when the lead soprano became ill. She used mindfulness to help her deal with inevitable errors and production changes, which she said would normally have disturbed her. However, the conductor complimented her on the quick and calm way that she dealt with each situation, which, she said, had built her confidence and performance enjoyment. It could be possible that friends and family would

have given positive feedback no matter whether the participant had done mindfulness or not, but these participants felt that mindfulness had had a part to play in these improvements.

De Felice (2004) postulated that doing mindfulness meditation would help musicians enjoy their music, their sound and themselves. Langer et al. (2009) also discovered that the instrumentalists in their study enjoyed performing more when mindful. All the Tanglewood music college participants in Khalsa and Cope (2006) reported more enjoyment of performing and two of the eight student participants in Hribar (2012) mentioned enjoying performances more after doing mindfulness. In a similar way in the current study, eighteen current participants described enjoying the experience of performing mindfully on stage more than before (U1, U2, U4, U5, U8, U14, U17, C1, C2, C3, C4, C5, C7, C9, C11, C12, C14, C17). C6 and C10 said they felt more comfortable on stage and five others were positive (U7, C20, U12, C13, C18). As C14 put it, "I actually believe that I can be a performer one day."

9.4 Chapter summary

This chapter has described the general results from the effects of learning mindfulness on performance as described in interview by the MfS student participants. Previous literature has shown that mindfulness is helpful for non-musicians with clinical levels of anxiety (see Chapter 1, Section 1.2.1) and so it is not unexpected to find that it is helpful for those with MPA. Despite not having a formal measure of MPA in this current study, the data suggested that participants fell into three main groups: those who chose to do the MfS

course to help with their MPA, those who spoke about MPA symptoms in interview, and those who barely mentioned it. If a participant had a higher level of MPA, the mindfulness exercises seemed to help alleviate or encouraged acceptance of physical and mental symptoms supporting the evidence from the literature. This seemed to break the negative cycle that often occurs to affect and occasionally destroy performances, followed by a positive cascade of effects on performance experience. On those participants with lower levels of MPA, however, mindfulness also seemed to have a positive effect on mental performance mindsets, which enhanced and improved their performance experience. The MfS course, therefore, may have not just had effects on those vocalists afflicted with MPA but also on those without. Jahn (2013) suggested in his book, *The Singer's Guide to Complete Health*, that adopting an Eastern philosophical approach to performance would help with increasing focus, acceptance, equanimity, and elements of self-compassion to encourage maximal performance in all vocal performers. In the current study, the Eastern philosophy-inspired MfS course may have demonstrated a positive impact on those starting to deal with excessive MPA, and those without it, in improving awareness and focus on stage, listening skills, technical skills, increasing flexibility in the face of adversity, enhancing creative performance skills and communication skills, reducing negative self-criticism, and improve memory skills useful for reflection and self-assessment. Participants felt that their performances were audibly improved and externally verified, and that they experienced more enjoyment.

Mindfulness may be beneficial for all musicians in performance, regardless of whether they have high or low or non-existent levels of MPA and

most participants felt that it had been a beneficial intervention for them as student performers. The next chapter discusses the longitudinal element of this research and summarises the study as a whole.

Chapter Ten – Mindfulness for Singers qualitative results

10.1 Longitudinal interview reports

In the longitudinal interviews, some participants compared the difference in lessons, practices and performances from the end of the intervention to three months afterwards. Many participants stopped having lessons after the Easter vacation, which was just after they had provided their first interviews, so some of them had relatively little new to report in this area in interview three months later. The opposite situation applied to performance experiences as most participants performed little during the intervention but had taken part in year-end examinations and performances by the time of the longitudinal interviews and naturally wanted to talk about these experiences. This section, however, concentrates only on comparisons of participants' experiences in lessons, practice, and performances between the two interviews.

Some participants reported changes in lessons after having continued doing mindfulness since the intervention. They talked about new physical effects, effects on mood and mindset, effects on teacher relationships, and effects on productivity in lessons. Several participants remarked that nothing remarkable had changed (U10, U2, U5, U8, C17, C20, C5, U12) but sometimes they qualified this with further information. They talked about developing better body awareness (U1, U10, U2, U3, U6, U7, C5) which helped with breathing (C5) into the back (U1), using support muscles (U10), working on jaw tension (U10), and making more of the breath (U2). U7 said she was aware of not trusting herself when singing runs but that being more mindful had not helped her in trusting herself better. They talked about the

effect of mindfulness on mood and mindset where U10, C18, and U4 found they were calmer in lessons, U6 and U10 felt more focused but where U1 felt improvements were “hit and miss” depending on her mood. Participants reported changes in teacher/pupil relationships that developed over time. U2, U10, and U6 felt their communication over technical matters had improved, although U10 was not sure if this was due to mindfulness or not. U4 and C18 found that doing mindfulness had progressively helped in dealing with criticism and stress in lessons. For example, U4 said,

I found that when I first did the counting I found that I couldn't relax as much but then actually afterwards that helped me distance myself and sometimes in lessons, just counting while she was saying something, like counting and breathing would help me to ease up a little bit.

Finally, C18 and U6 felt that lessons were increasingly more productive and efficient.

In vocal practice, participants mentioned that mindfulness had developed the following areas over the intervening three months: body awareness and technique, and practice mindset. Participants reported that continuing to do mindfulness before practice had improved their body awareness which helped with breathing (U1, U2), voice control and flexibility (C21) and, body tension (U4), how vocal support should feel (U3), and vowels (U2). U7 felt it helped her in preparing for a big performance by examining the music more closely and that she was more aware when things had gone right rather than just when things had gone wrong. U3 tried a small experiment as she had found so much help from doing mindfulness before singing practice by not doing some for a session during the intervening 3 months and was surprised to find that her voice was as weak and airy as it had been before.

She said that she went back to doing mindfulness before singing practices from that point on. Some participants found mindfulness had increasingly helped in their mindset within vocal practice. U6 felt it had become a comforting routine to get her into a positive space. U10 felt her breath was steadier and got into practicing quicker. Participants reported feeling more focused (U2, U10, U7, U8, C18, C5) and more patient (U2), and relaxed and happier (U4). C18 felt far less distracted and C5, when replying to the question asking whether she had had any new experiences in practices since finished the mindfulness course, said,

Not really, just really continued the same way. I've just felt more me and able to control my breathing and when I've been in the practice rooms and practicing, I've just been a lot more focused on what I want to do so rather than going in and sitting on my phone for ages and looking outside the window, I've gone in and thought, 'This is what I want to do' and I've been in it and I've done the work and it's took me a lot less time. So I just keep building on that type of thing and it just gets easier every time really.

Three participants used mindfulness in order to relax, calm down and cope with nerves before singing practice (C18, U8, U17) as working on performance pieces made them realise that their exams were approaching.

Participants who did not do regular performing talked about their recent experiences in exams and concerts in the longitudinal interviews, often comparing their mindful performing experiences positively against the previous year's examinations. However, some participants were more seasoned performers and had interesting insights on how mindfulness had impacted on their latest performance experiences. U1, for example, reported doing 20 minutes mindfulness before her final singing examination and said that she felt more prepared and in control in comparison to earlier singing

experiences. U10 reported never feeling many nerves when performing normally but experienced “tingling nerves, which are quite good ones to get you excited for it” after doing mindfulness exercises. U14 regularly performed and said that she got nerves but mindfulness had helped, saying, “Usually it starts as I’m singing and it wasn’t that bad this time around.” She continued, “I guess it’s just because I was very calm, I guess I was more in the moment than worrying about how I sounded or what else was going on.” C11 performed regularly and said that she much preferred performing to people she did not know making examinations difficult for her. She reported that doing mindfulness helped her to focus in her examination and said, “I smiled, and I was really telling a story when I was singing so I was trying to look at them because that’s my style of performance” and that she felt more comfortable. C17, who regularly did gigs, had an interesting insight, saying

I feel like the more I do it, in a way, the less I need mindfulness with performing and then I need it for other things. For me it's more of an appreciation, like actually appreciating that you're doing what you love and you're having fun and not just doing it and then it's gone. Have the time to think about it, which is really nice.

Stern, Khalsa and Hofmann (2012) employed 7-14 months longitudinal questionnaires when investigating the effects of yoga and meditation on students’ music performance anxiety (see Section 1.2.1). The participants who provided longitudinal questionnaire data reported continuing their yoga and meditation practices and their follow-up results demonstrated a trend towards significant decreases in MPA suggesting continued improvement. The current study extends these findings with qualitative evidence that continuing to do mindfulness after the intervention was reported by participants to have had further effects in their lessons, practices and when performing, suggesting that

continuing mindfulness practice had increasingly helped participants to develop and improve their personal experiences in these music-related domains, not just in MPA.

10.2 Overall summary of the study

Participants engaged well with the course and research requirements, and only one student participant reported that they would not be carrying on doing mindfulness in the future. Despite this, she, and every student participant and several of the teacher participants said that they would recommend it to other student singers. Advanced vocalist U7, concluded:

Mindfulness has made me aware of the talent that I have and the ability that I have...it's made me fall back in love with singing and the pleasure that I get from singing.

The original pilot MfS study (Czajkowski, 2013) was very positive and suggested that teaching mindfulness to singers could be a useful intervention. However, in replicating it with a far more rigorous methodology including a controlled and randomised controlled quantitative design, a blind teachers' study, utilising anonymous diaries, and adding a longitudinal element, the overwhelming conclusion from this study is that teaching a mindfulness course to singers in higher education was tremendously useful and helpful for them as learners, proto-performers, and in daily life.

Chapter 11: General discussion

This thesis has sought to investigate the effects of teaching mindfulness to student musicians in higher education through a series of studies at universities and conservatoires using a variety of different methods including pre- and post-mindfulness intervention questionnaires, and semi-structured interviews. This final chapter summarises the key findings across the studies and their implications, and critically evaluates the methodology. It also provides recommendations and directions for future research.

11.1 Summary of the key findings

This thesis had two main aims. The first was to investigate the music specific effects of teaching mindfulness to music students and the second was to explore the mindfulness mechanisms that may lie behind those changes. Two studies using predominantly qualitative mixed methods designs were used to investigate these phenomena. No previous studies have explored the effects of mindfulness training on music students or investigated the mechanisms of mindfulness as regards musicians in such depth.

Significant results from the quantitative mindfulness measures suggested that mindfulness training improved levels of mindfulness over the studied interventions. Participants from both studies reported that doing mindfulness had positively impacted on their instrumental one-to-one lessons, solo practice sessions, group rehearsals and ensemble practices, performance anxiety, and performance experience. In the MfS study, participants' singing teachers were also able to identify many of the experimental participants from their total student register by observation alone

and reported benefits on their musical and interpersonal relationships with students.

The key findings are discussed below in two main sections: the effects of learning mindfulness on musicians, and the mechanisms through which mindfulness may work on this demographic. The first section discusses the effects of mindfulness on mental states in solo instrumental practice, effects in rehearsals and ensembles, and effects on time perception and in performance. This section concludes with a discussion on the outcomes of the MfS replication study. The second section explores the mechanisms of mindfulness such as attention regulation, body awareness, emotion regulation, self-perception, and the integration of these mechanisms in musician-specific contexts

11.2 Key findings

11.2.1 The effects of learning mindfulness on musicians

Mindfulness effects on solo practice mental states

In the music performance literature, there have been several investigations of the most efficient and effective way of practising a musical instrument. This research tends to focus on practical aspects, such as cognitive strategies (Jørgensen, 2004; Nielsen, 2004) and effective or quality practice methods (Chaffin & Lemieux, 2004; Lehmann & Ericsson, 1997). However, there is a dearth of experimental research into the mental state with which students enter the practice room and what effect that, and problems in the practice room, might have on subsequent practice behaviours and performance outcomes.

From taking a few mindful moments before practice, participants found that they were in a different mental state when they entered the practice room, helping them to separate mood and practice, and putting them in the right frame of mind to focus on work. Participants then found that, should problems arrive such as frustration, creative block, being self-judgmental, or mental or physical tension, they had a strategy that could help. If they took a few moments of mindfulness in the practice room, they reported having a clearer mind, more perspective, or more ordered thoughts. This helped some participants to continue to practise whereas before they might have left the room, but it also gave other participants the self-awareness to leave when it was obvious to them that it would be detrimental to stay and force the situation. As a result, participants in the current studies reported that learning mindfulness helped them to cultivate more productive, effective, and efficient private instrumental practices.

Much of the existing music practice literature is about finding the best way to do practice. Chaffin and Lemieux (2004), for example, identified five fundamental characteristics of musical excellence in music practice as concentration, goal-setting, self-evaluation, having strategies and keeping in mind the finished product. There have been comparisons between experts and children's musician's practice, which have discovered that the experts had extensive metacognitive abilities where, once again, concentration, planning, monitoring and evaluation were key (Hallam, 1997). Jørgensen (2004), also discussed strategies for individual practice, such as planning, preparation, evaluation, developing conscious attention, and knowing the strategies that work for you. It is possible to know a great deal about research-evaluated

quality practice methods but when a problem, maybe in general life, or the inability to master a particularly tricky technical skill, has affected one's feelings and emotions, one's mindset during practice is unlikely to be optimal. This can be the difference between knowing about quality practice methods and actually doing them. Steinfeld and Brewer (2015) suggested that mindfulness might help protect the musician from practice avoidance. A third of the MfS participants and over half of the GSMD contributors provided empirical support for this theory.

Mindfulness effects in rehearsals and ensembles

An unexpected finding was the effects of learning mindfulness in rehearsals and ensembles, which had not been observed or theorised before. After doing a few minutes of mindfulness before group rehearsals and ensembles, several of the GSMD and MfS participants described being more focused and aware, and they felt that they had developed improved listening skills and were more confident to give opinions and contribute to proceedings.

The MfS participants reported enhanced observation physically and musically within groups, and improved blending, pitching and instrumental technique. They also described developing useful personal and interpersonal skills, such as less self-criticism, and kinder judgment of others, and spoke of an increased ability to deal with organisational issues.

As research has discovered that attentiveness in rehearsals can be affected by how much participants are kept on task by the leader (Brendel, 1996; Dunn, 1997; Price 1983), the effect of feeling more attentive reported in rehearsals in the current study could have been due to changes in leadership or leading approach which was not controlled for in this study. It would be

useful in future studies to take this possibility into consideration when designing a more focused study investigating the effects of mindfulness on rehearsals and ensembles by taking care to note or control leadership style and approach in order to report on this possible variable.

Mindfulness, performance, and time perception

It was predicted that mindfulness would have a positive impact on music performance anxiety (MPA) due to a variety of mindfulness and contemplative studies with musicians with MPA (see Chapter 1, Section 1.2.1), and work in the clinical domain that demonstrated the efficacy of mindfulness training in cases of clinical stress and anxiety (see Chapter 1, Section 1.1.3). In line with the existing literature, participants with high self-reported levels of MPA in both studies found benefits of doing mindfulness on the physical and mental symptoms of MPA, and on the causes of MPA, such as audience anxiety.

However, those participants who demonstrated lower levels of MPA, and those who were mindfully starting to cope better, also spoke in detail in the interviews about other effects of mindfulness on aspects of their performance experience. This is something that is rarely captured in mindfulness MPA studies and has not been researched or described in such detail to date.

Nearly every participant in the GSMD and MfS studies reported greatly improved focus and concentration on stage. They described being able to perform in the present moment and less automatically, and many confirmed that they were better able to deal with the unexpected happening on stage.

About half of the participants in both the current studies also self-reported improved creativity on stage. They described improvising more freely and confidently, using more tempo, rubato, rhythm, phrasing, and dynamic changes in the moment. They felt better able to prepare technically for difficult passages, and felt more expressive and freer physically. They reported improved listening skills and characterisation, and greater emotion portrayal and interaction with other performers and the audience. Teachers in the MfS study also noticed positive performance changes from the MfS student participants.

GSMD and MfS participants reported performing better whilst being more mindful, and remembered more of what they had done on stage. They had also received better feedback from peers, “blinded” teacher participants, and examiners.

Many of the improvements in performance may have been down to a key mechanism not suggested by any previous music and contemplative theory or experimental study - that of a time perception change engendered by being able to come, at will, into the present moment on stage. Jon Kabat-Zinn (2016) has suggested that doing mindfulness may affect time perception by slowing it down perceptually and over half of the GSMD students and two thirds of the MfS participants reported that performances seemed to take longer than normal or the “right” amount of time, were clearer, and went by in less of a blur. As a result of the perception of “extra time” and mental clarity on stage, participants described being able to make technical adjustments when needed, listen more closely to peers and accompanists, take the time to act, use more characterisation, improvise, or play with the music more creatively;

they were also less surprised if something happened out of the ordinary. As a result, they reported feeling more in control and had increased confidence. They felt that their performances were more successful, they gained better feedback, and had more performance enjoyment. Mindfulness therefore had a positive impact on aspects of performance and performance experience as well as helping with MPA.

Replication

Replications are desirable for a range of different reasons, such as providing a broader evidence base for interventions tested in small pilot studies and building a rounded scientific viewpoint. They are particularly called for in the nascent field of mindfulness (Van Dam et al., 2017). Therefore, the current replication MfS study, with a more rigorous and longitudinal design utilising a wider demographic, was necessary to test the results that had been discovered in the MfS pilot study (Czajkowski, 2013). This is because interventions should not be taught at music colleges or university music departments without rigorous empirical evidence of their efficacy.

The findings in the MfS study demonstrated a particularly close replication of the findings from Czajkowski (2013), so it is now possible to confidently assert that teaching mindfulness to student singers at university and conservatoire has significant positive effects. The pilot study results have been verified by five times more student participants, twice as many institutions, and four times more teachers in the blind study. A novel finding from the longitudinal study is that two-thirds of current student participants, bar one, were continuing to benefit from doing the MfS course in singing and daily life, and had continued their mindfulness practice. Informal conversations with

past students from the pilot study have confirmed that some have continued past the 2 years mark. The GSMD study also demonstrated that teaching mindfulness to vocal students at LCOM in the MfS study had similar positive results.

A novel finding was that similar effects were found by non-vocal instrumentalists at the GSMD in many areas of their music education and performing lives. For example, improved focused awareness led to improved body awareness that had a positive impact on learning technique whether one was a singer, or a violinist, or a jazz saxophonist. The process was the same; the only difference was through becoming aware of different parts of the body pertinent to instrument type. This would suggest that a replication may return a similar response as that for the MfS replication study and strengthens the assumption that teaching mindfulness in higher education is beneficial to instrumentalists.

11.2.2 Mechanisms of mindfulness for musicians

The second research aim explored the mechanisms of mindfulness that delivered these benefits to music students. Hölzel et al. (2011) suggested a mechanistic framework of mindfulness using conceptual, psychological, and neural studies from the mindfulness clinical and theoretical fields (see Chapter 1, Section 1.1.2). They proposed four mechanisms of mindfulness: attention regulation, body awareness, emotion regulation and self-perception. It was noted that these mechanisms were underpinned by attention regulation and might be activated separately during meditation but that they also interacted with each other to develop mindful living. It became clear during analysis that

this theoretical framework mapped well with the results from the current studies. As a result, it is possible to see these mechanisms at work within the musicians learning mindfulness. This section combines results from both studies as many effects overlapped between the demographics, and whilst these findings were not applicable to all students, the general patterns of how the findings relate to this framework are summarised below.

Attention regulation

One of the most prevalent responses from participants in musical contexts was that they felt more focused and attentive from learning mindfulness and that this led to other improvements. Developing better attention regulation, they said, lessened distractions and mind wandering in lessons and practice, and they felt that they performed less automatically. In lessons, they reported that this led to more productive sessions that, in the MfS study, were also noticed by singing teachers. In solo practice, participants described becoming aware of their practice behaviours, changing their practice structure, and becoming more productive. A key effect noted by participants was a change in time perception, which had an impact in practice sessions and on stage. In practice, some participants reported working for longer periods due to being in a better frame of mind, whereas some practised for shorter durations because they said that they were more efficient. Others perceived the time in the practice room to be shorter although it stayed the same because they were enjoying themselves and being more creative, and some felt that the time was longer because they were mentally more “present”. On stage, many participants reported that time seemed to slow down and performance experiences became less “blurry” when they were

more attentive in the moment. This clarity of mind and “extra time” meant that they were better able to transfer that which had been learnt in practice successfully to the stage. They also found that they had time to be more creative on stage introducing new performance elements, such as rubato, dynamics, or improving characterisation. They described feeling more in control and creative, and having a clearer memory of the performance after they left the stage. This enabled more effective understanding of feedback and improved performance enjoyment.

Body awareness

Participants stated that they had learned to focus attention on internal and external body sensations through the Body Scan and Breathing exercises. A novel finding was that students were able to describe specific parts of the body that they had become aware of as a result of learning to be more mindful. This awareness was often instrument-specific (e.g. wind players became more aware of sensory feedback from their lips, vocalists felt clearer physical sensations from their breathing mechanisms) and encouraged them to have more focused body awareness when learning and assimilating technical skills in lessons and practices. As a result, they also described enhanced communication with teachers on technical matters. They became more aware of unnecessary tension in the body in lessons, practice and performance, and with a slower time perception on stage, enhanced body awareness meant that they were able to implement technical learning to improve sound and communication in the moment on stage.

Emotion regulation

Participants reported enhanced emotion regulation, and described feeling calmer and more relaxed in lessons, private practices, rehearsals, and performances. This led to more open learning experiences, and, for example, increased patience in solo practice sessions. In rehearsals, participants' accounts suggested that they were developing emotional abilities to deal with organisational issues and musical disagreements with peers. Enhanced emotion regulation on stage meant that when something happened that was unexpected, participants were able to handle distractions more effectively and performances were less disturbed. Participants with MPA also described becoming more aware of pre-performance emotions, thoughts and feelings and were pleased to have developed mindful strategies to help improve their mental mindset both in preparation, whilst on stage, and post-performance.

Self-perception

Learning to be less negatively self-judgmental, and to respond rather than react to external events or internal thoughts, can help one develop self-perception. The participants described changes in self-perception, such as being less critical of themselves in lessons, practices, rehearsals, and performances, and they reported rises in confidence in these music-specific areas. In lessons, participants said that they found it easier to take criticism from the teacher by deflecting the judgment away from a personal attack and not react in an overly emotional manner. When problems arose in solo practice, such as frustration with a technical difficulty or the mind being distracted to ruminate on a relationship issue, participants reported responding by being kinder to themselves and taking a quiet moment of

mindfulness to choose a course of action rather than following a habitual response, such as giving up or forcing themselves on. This often led to more extensive practice and better use of time in the practice room. Also, for those with MPA for whom doing mindfulness did not relieve or expunge symptoms, they found that they were better able to accept those symptoms and simply let them be, without panic, added anxiety, or negative self-judgment.

Integrated mechanisms

The mechanisms above were also reported by participants to be integrated but in musician-specific ways. For example, participants described how, when learning technique in lessons, improved attention regulation helped them to be more focused in the moment when learning new skills; enhanced body awareness helped in identifying novel physical sensations from the new technique, and improved technical communication with the teacher. Developing emotion regulation and self-perception helped in dealing with self-criticism and taking criticism from the teacher during the technical learning process. The participants reported feeling calmer in lessons and found it easier to “hear” the teacher in the moment, which enhanced receptivity of new information and improved the interpersonal relationship. In the MfS study, such changes of behaviour led teachers to identify students as mindfulness participants.

11.3 Evaluation of the methods and approaches used in this thesis, and future recommendations

This section discusses the strengths and limitations of the methods and approaches used in both the GSMD and MfS studies and provides future recommendations. The areas discussed are study design, sampling, and reflexivity and bias.

11.3.1 Study design

Both studies in this thesis adopted a mixed-methods qualitative-dominant design. However, most music and contemplative studies use a quantitative approach, and studies using this design were outlined and assessed in Chapter 2 (see Section 2.2). This prevalence reflects mindfulness and psychological research in general, as positivism is still seen to give social science research a serious stance in the scientific community. Most quantitative research, however, is only valid when testing elements already known and quantified. As was seen in Hribar (2012), if a researcher adds some qualitative context, new findings can emerge that were not known before. This is the strength of a mixed-methods qualitative-dominant approach and the novel results found during this thesis uphold this design decision. Using a quantitative design with the participants demonstrated that there may be a correlation between levels of mindfulness and the mindfulness course, and using a controlled and a randomised controlled design in the MfS study provided evidence that the MfS course may have raised levels of mindfulness in the participants in comparison with controls. Interviews allowed all the participants to add their unique experience within context in a nascent field. In

the MfS study, adding a qualitative diary method allowed participants to engage anonymously using their own words freely. Employing teachers in the MfS blind study highlighted the outwardly visible effects of mindfulness and allowed teachers to give their viewpoints openly and confidentially. Taking a rigorous qualitative-dominant approach facilitated a fully rounded, multi-faceted study of the effects of mindfulness on student musicians. The value in using this approach is clear from the depth of experience reported by the student and teacher participants of their engagement with mindfulness in musician-specific contexts: results are both transferable and generalisable for the musician community.

The quantitative elements of both studies, however, had limitations. In the GSMD, an evenly matched control group was absent. A control group would have been useful to help isolate whether it was mindfulness or some other variable that caused a change in the participants and this study is weaker as a result of not employing such a device. Due to the organisation and provision of the mindfulness course at the GSMD being out of the control of the researcher, a controlled design was not possible. However, this study is, primarily, an exploratory rather than an explanatory study and, in the cases of both studies, the FFMQ was administered to assess participants' perceived mindfulness changes over time to provide support for the qualitative research rather than as a stand-alone gathering of data. As the exploratory results from the GSMD study were so encouraging, further research would be recommended to find out if the positive questionnaire results could be replicated using a randomised controlled trial.

The MfS study, although employing a controlled and randomised controlled trial, operated a treatment as usual or wait-list control group rather than a competing intervention. Although a control group in this study did help in isolating the mindfulness variable, a comparison group using an alternative treatment, such as the Alexander Technique or Feldenkrais, would have been useful to compare mindfulness against another treatment. This was not chosen because there is very limited research on the Alexander Technique and Feldenkrais method, so it is difficult to know the true benefit of these interventions. In addition, there are no Alexander Technique teachers currently operating at the University of Leeds and no Feldenkrais teachers at either institution. However, it would be interesting in the future to run a RCT mindfulness for musicians' study in comparison to an 8-week course of Alexander Technique or Feldenkrais for musicians should experienced teachers of those methods be available.

Another limitation was the unvalidated nature of the musician-specific MfM questionnaire (see Chapter 2, Section 2.3.2), which is still under development. Due to the resources required to fully test and validate this questionnaire, which would include many participants and a longer time scale for test and retesting, it was not possible to complete this work within the context of this PhD. This, unfortunately, may negatively affect the dependability of the quantitative results of this part of the study. A preliminary reliability analysis was performed on the MfM data from the GSMD and the MfS participants. The results, combined with some of the responses from participants in the interviews, suggest that this measure needs further testing and refining. However, it is important to remember that this type of reliability

testing is usually performed with a large cohort of participants and so the smaller numbers of participants who provided data for this test, in this case, may have negatively affected the results. Despite this, the MfM results represent an interesting accompaniment to the interview data, and provide another method of response for the participants. A study would be recommended to validate this measure, perhaps developing it further in collaboration with the original FFMQ developers. This would be particularly useful to support further research evaluating the effects of mindfulness on other musicians' demographics such as professionals or students in school. It could also help investigate the relative efficacy of individual mindfulness exercises, such as the Body Scan or Mindful Eating, on these groups.

Many of the participants in the current studies reported that they had music performance anxiety. A large majority of the previous literature studying the effects of mindfulness on musicians has already focused primarily on MPA using quantitative methods. Therefore, it was decided to explore a unique, predominantly qualitative approach to the exploration of the general effects of teaching mindfulness to musicians in music education. Of course, future research could combine a validated MfM questionnaire with some established MPA-type pre-and post-intervention measures (e.g. KMPAI; Kenny, 2009) and/or reputable clinical questionnaires on stress and anxiety (e.g. STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) in a randomised controlled trial. However, musicians do not often "fit in a box" as a demographic. Based on the results of this thesis, it is recommended that design of any psychological study for musicians should be accompanied by a

qualitative element, as the varied responses individuals provide give far greater contextual understanding of the “how” and “why” of change.

Another limitation was being unable to log the amount of mindfulness practice time undertaken by each participant, particularly in the MfS study. Although the mindfulness research is inconclusive as to the efficacy of time engaged in mindfulness practice (Vettese, Toneatto, Stea, Nguyen, & Wang, 2009), there is no doubt of the importance of practice for musicians in music education to enhance skills (Chaffin & Lemieux, 2004). It would have been useful to be able to gather data on practice time to ascertain if participants in general had been able to complete the intervention instructions. As the diaries were anonymous, it would have been impossible to connect lengths of practice time specifically with participant outcomes to gain a closer view of the possible relationship. However, the anonymity of the practice journal was of key importance to control for self-report bias considering that the researcher was both researching and running the intervention. It was also useful in gathering moment-by-moment data. In future, it might be possible to use an iPhone or Android Mindfulness application to gather individual participants' practice data in isolation from anonymous self-report feedback. However, this would also require participants to engage the application for each practice session.

It is possible that some of the recruitment materials (Participant Information Form, Appendix M; Information Poster, Appendix Z; Invitation Email, Appendix AA) and some of the research-based content in the MfS course may have primed the experimental participants in the MfS as to the types of experiences they would expect to find from learning mindfulness.

From a demand characteristics point of view, this may have influenced what the experimental participants talked about during their interviews and have affected the veracity of the results. Whilst it is possible this bias may have arisen from the recruitment materials, there was very little music-related mindfulness research utilised as part of the MfS course, which should not in itself have generated such bias. The main research referred to in the course was of a general mindfulness or psychological/evolutionary/health nature in a similar way to that used in general MBSR/MBCT courses. The only music-related mindfulness research mentioned was Diaz's (2013) study of mindfulness and music listening and a reference to Steinfeld and Brewer's (2015) suggestion that there may be a connection between music-making and mindfulness practice. Interestingly, relatively few participants mentioned that mindfulness had an effect on their music listening but this should be taken into account when assessing the efficacy of the course in this area. One of the exercises, the Body Scan, made reference to body parts also used in singing and this may have primed participants to be aware of these areas. However, from the initial information briefing session, and at each MfS session, participants were requested to try the mindfulness exercises with the explicit request that the research aspect of the course was looking for their own personal experiences, or lack of experiences as singers. Participants seemed to like the idea that they were co-researchers in the project rather than just "guinea pigs" and many of them seemed to take this request seriously. Despite this, it is important to look at the recruitment materials and see what contexts and effects were mentioned in order to compare them with

participants' responses in interview. The recruitment materials mentioned the areas detailed in Table 11.1.

Table 11.1 *Context and effects of learning mindfulness for singers as mentioned in study recruitment materials*

Context	Effect
Lessons	Learning singing technique Micro muscular movement awareness Criticism Stress Teacher/pupil relationships Effective learning
Music practice	Changes/enhancement of practice behaviours
Performance	Nerves/stress Flow Attention/focus/control Orchestra/cast/audience awareness Stage movement/acting Creativity Memory Physical awareness

Participants referred to all these items, except for flow, in interview. However, beyond these general areas mentioned in the recruitment materials, there were no specifics given on how these experiences would manifest. It is clear from the research detailed in Chapters 7 to 10 that participants' experiences were, in many cases, very detailed and pertinent to the individual. There were also many other areas not mentioned in the recruitment materials that were experienced and divulged in the interviews (see Table 11.2).

Table 11.2 *Context and effects of learning mindfulness on singers not mentioned in recruitment materials*

Context	Effect
Lessons	Less self-criticism More productive and efficient lessons Reduced vocal tension Improved sound and tone Improved focus and attention
Music Practices	Better ability to deal with problems Time perception changes Less vocal tension Better transfer of learning from lessons to practice Improved vocal technique Improved creativity/performance skills practice More focused and aware
Rehearsals and Ensembles	Everything in this section apart from music listening
Performance	Improved vocal technique in performance Time perception changes Better ability to deal with the unexpected on stage More enjoyment of performing Improvements in tone and sound

It is well known in educational circles that transferral of knowledge from one area to another is a difficult procedure and that this transfer has to be explicit using well-practised routines or an effortful search for connections (Perkins & Salomon, 2002). Students are notorious for not finding connections even when they have been explicitly taught to do so for examination purposes, so it may be unlikely that the information in the recruitment materials had a dramatic effect on the reports given two months later in an interview when participants had been given the explicit information to give their own personal experience. However, it is wise to read the reports from the participants whilst

bearing in mind that these recruitment materials may have had some impact on their responses. In future, it might be worth not mentioning any possible effects of learning mindfulness on musicians in recruitment materials and rely on the well-known effects of mindfulness to draw students to participate in a study.

11.3.2 Sampling

At the GSMD, it was hoped that most of the participants of four iterations of the MfPAS (approximately 60-70) over two years would take part in the questionnaires and that a subsection of about 20 would take part in interviews. However, despite funding being added to the study for participants who completed questionnaires for GSMD iterations 2, 3 and 4, only a total of 25 participants completed the pre- and post-intervention questionnaires for all four iterations, whereas 21 participants took part in interviews. Participant numbers for quantitative mindfulness interventions studies are normally small in comparison to clinical studies but more participants would have increased the amount of questionnaire data that could be analysed and it would have improved the representative nature of the results. A good way to encourage more participants would have been to personally meet those participants who were committed to taking the MfPAS. However, despite requesting to be involved in the running of the mindfulness sessions at the GSMD, it was only possible to speak to prospective MfPAS students at a pre-course “taster” meeting. The reasons why some participants dropped out of the course partway through are not known and those who chose to take part could be those who had a positive experience, both of which issues may have

influenced the mainly positive results from this study. However, 21 participants for the interview part of this study was slightly more than expected, and the duration of this research project allowed a wide variety of instrumentalists of different ages and experience to take part in the interview process. This approach has provided a rich, deep, and contextual overview of the musician-specific effects of learning mindfulness on different instrument types in this demographic. In future, including a sample of participants' teachers or examiners would be particularly useful in assessing whether the effects of the course on their students were observable to teachers/assessors who know them well.

Another issue that should be taken into account when reading the results of the GSMD study is that participants paid to take the MfPAS course. This may have meant that they had a vested interest in the course having taught them something and may possibly have influenced their answers to the positive in the interviews.

In the MfS study, one of the key limitations is that of gender parity. This project primarily involved female singers due to the necessary ethical voluntary participant recruitment process. Only a total of five male singing students chose to take part in the intervention and four of the controls at the university were also male. Apocryphally, the paucity of male singers in the UK is well known (Rowbury, 2007) and so, although it does mean that the research results are biased from a predominantly female perspective, this study's participant demographic is quite normal and representative of singers in higher education (Nettl, 1995). As more participants were involved than were expected, the MfS participants also covered all the years of education

and styles of singing available at both institutions and allowed a more in-depth exploration of the effects of learning mindfulness on singers than had been managed previously. In comparison, a third of the GSMD study participants are male, which provides a more gender-balanced report of the self-perceived effects of mindfulness on mainly instrumental musicians.

Another limitation of the MfS study was the recruitment of controls at the University of Leeds. An email was sent to recruit those who had not chosen to take part as experimental participants to be controls and these participants were not met in person. People who chose to be control participants may not have chosen to take part in a large study that would have taken up a large amount of time for a variety of reasons: maybe they were too busy, or maybe they did not feel the need to learn to be mindful. This means that the recruitment of the controls was not perfectly matched with the recruitment of experimental participants at this institution. As a result, demand characteristics may have been lower for this demographic meaning that the quantitative results could have been affected and this should be taken into consideration when reading these results. In future, to avoid possible confounds in demand characteristics in recruiting controls, it would be useful to follow a similar protocol to that used in the Leeds College of Music study where all participants followed the same recruitment procedure. It is interesting to note that, despite being recruited in the same way as experimental participants, wait list controls at this institution demonstrated non-significant results between their first two questionnaire results in a similar way to those controls at UoL.

The mainly positive results from this study with instrumentalists at the GSMD, and singers in higher education in Leeds with MPA, suggest that future research using a sample of the professional music community could be beneficial. MPA, for example, has been noted in professional opera performers (Kenny, Davis, & Oates, 2004) and orchestral players and soloists are known to have both physical and mental stressors in their daily and professional lives (Fishbein et al., 1988). A project teaching an 8-week mindfulness course to these demographics would be recommended to investigate whether their subsequent mindful music experiences within the professional world would be different. Would mindfulness have similar positive effects on maintaining a professional-grade instrumental technique as there were for students learning one? Does it have an effect on music performance anxiety or change practice or life behaviour strategies? Would professionals have valued learning mindfulness when they were doing their training? As mindfulness courses and online interventions are easily accessible now around the world, this is an area that would benefit highly from further investigation.

It would also be interesting to teach a mindfulness course to instrumental teachers and investigate the effects on their teaching methods and the possible impact on their students. Would the students notice their teachers had taken part in a mindfulness course? Would it have any effect on the musical and interpersonal relationships between the students and teachers? Would the teachers change any structural or pedagogic elements of their normal teaching methods in response to learning mindfulness? These

and many other questions could be future topics of mindfulness and music research.

11.3.3 Reflexivity and bias

Qualitative research has inherent strengths and weaknesses, especially when a studied intervention is both designed and investigated by the same person. Major concerns are that participants might inflate their interview responses when interviewed by someone they knew, and that there could be a bias from the researcher towards a positive report which may reduce the value of the findings.

A positive aspect of the qualitative data gathered at the GSMD was that participants were completely unknown to the researcher, the intervention was taught by a lecturer at the GSMD, and interview responses were confidential and primarily gathered at a distance over the phone or via Skype. This reduced the possibility of positive bias. In the MfS project, however, the researcher ran the intervention and the interviews and therefore became personally known to the student participants. Students often do not wish to disappoint the course tutor, and due to the recruitment materials, they may have preconceived ideas as to the effects they might be expected to experience. It is possible that they may have unwittingly then experienced and reported those effects to the researcher, which could positively bias their report and the final results. However, the nature of the intervention demanded that the designer, deliverer, and analyst must have both mindfulness and singing experience.

In order to encourage the trustworthiness and dependability of the interview responses, the MfS research process was designed with rigorous checks in place: the pre- and post-questionnaires were controlled (university) and randomised controlled (conservatoire); initial interviews were held within a week of the intervention, and the longitudinal interviews within 6 months, as recommended by Bhandari and Wagner (2006); intervention daily diary data were collected anonymously; and, in the teachers' blind study, none of the teachers was known personally to the researcher. The anonymous diary is a limitation in itself as the findings are not attributable to individual participants and the results had to be analysed en masse. However, this also allowed participants the opportunity to give feedback freely and openly, and helped to counteract possible result bias involved in this study.

At all points during these studies, I have made my position clear as a practitioner of mindfulness and a highly experienced singer and voice teacher, and the results should be read with this reflexivity in mind. I found that doing some mindfulness exercises before interviews helped me to stay focused on the content reported by the participants, and to gently investigate interesting phenomena further. This also helped me to guide loquacious participants back to the topic in diplomatic ways. Student participants in both studies seemed pleased to hear of my experience as an ex-university and ex-conservatoire vocal and instrumental student when interviewing them but I was mindful not to impose my views on them. University students and conservatoire students have different pressures and expectations on them. The university cohort seemed more equally pressured by academic and performance concerns in response to career aspirations that were not necessarily grounded in music,

whereas the conservatoire students seemed to feel a particular implicit pressure on them to become professional performers. They engaged more closely with me knowing that I understood their unique learning contexts, pressures, and the terminology that they used. Singing teachers also seemed to relax visibly once I had informed them of my singing teacher training and experience and I felt they became more open and technically specific in their responses.

A suggestion for future research would be to employ more independent evaluators of the interview data or utilise a second musician-trained mindfulness teacher or similarly knowledgeable research partner should one be available. In MPA mindfulness studies, the use of additional objective measures, such as measuring cortisol levels to examine physiological stressors, may also be useful. For example, in a review and meta-analysis of interventions to reduce stress in university students, Regehr, Glancy, and Pitts (2012) found that there were lower levels of cortisol in experimental participants who took part in cognitive, behavioural and mindfulness interventions. And, more specifically to meditation, Tang et al. (2007) discovered that five days' training in meditation improved self-regulation and attention for 8 undergraduates with measureable decreases in stress-related cortisol. This method, therefore, may prove useful in measuring levels of stress in mindfulness and MPA studies.

11.4 Implications

There are implications for management at music institutions in higher education, school children engaged in music activities, and music professionals from the results of this study investigating the effects of teaching mindfulness to musicians. Most universities and many music conservatoires are part of the Healthy Universities initiative and are now becoming more invested in musicians' health and wellbeing as more evidence comes to light of the stresses and strains experienced by student musicians in pursuit of peak artistry. Schools are becoming more concerned about stress and anxiety in their students, which would include student musicians. Professional musicians (like professional athletes) also need mental and physical help from health and wellbeing specialists supported by evidence-based programmes, such as this, in order to keep bodies and minds in peak physical and mental states for performance.

Mindfulness training at a music conservatoire was recently described as a "lifestyle enabler" to optimal health in a Musical Impact study investigating the perceptions of musicians' health and wellbeing provision in music conservatoires (Perkins, Reid, Araújo, Clark, & Williamon, 2017). In the current thesis, the positive results from both the GSMD and the MfS studies suggested that teaching mindfulness to musicians at universities and conservatoires can be a highly effective intervention in all aspects of music-specific educational learning and preparation for a future performing and teaching life. Eight-week mindfulness courses, which have repeatedly demonstrated their efficacy in the clinical domain (Gotink et al., 2015) and have been used to positive effect for music students (Hribar, 2015), should

ideally, therefore, be made available in music departments and music conservatoires across the country. It is acknowledged that there may not be the resources to run a full 8-week course, however, shorter courses have been shown to have a positive impact (Tang et al., 2007; Tang, Tang, Jiang, & Posner, 2014). However, longer courses would probably enable students to embed the practices in their daily lives. Practically, courses could be implemented as part of a university or conservatoire's Health Promotion Framework that is advised as part of the Health Promotion in Schools of Music project (Chesky, Dawson & Manchester, 2006). However, as mindfulness may not be acceptable to everyone, as evidenced by the experiences mentioned by Daphne and Tony in the GSMD study, it might be better to utilise a visiting specialist with mindfulness and music performance/teaching experience who could provide a regular voluntary extra-curricular course for those who wish to take part. For example, the MfPAS course at the GSMD is currently run by GSMD lecturer who is also trained as a mindfulness teacher. The classes are subsidised by the conservatoire and students pay a small fee to take part. At universities, they could be run as voluntary "discovery" type modules in a similar style to that suggested in Appendix BB or as an accessory to compulsory musicians' health and well-being courses.

For school children, vocal and instrumental behaviour patterns are developed from the first moment the student steps into the teacher's studio. As mindfulness has been shown to be beneficial for students in schools personally and academically, and as the government are keen to include mindfulness to enhance school students' lives (Mindfulness All-Party Parliamentary Group, 2015), the implications from this study suggest that

teaching mindfulness in a targeted way to child and adolescent musicians would also be of great benefit to their mental and physical health when developing musical skills.

The accepted tradition for professional musicians that one should physically suffer for one's art and that depression and anxiety are the "flip" side of musical genius are rapidly declining as more and more musicians commit suicide or speak about their problems (Barton, 2015). Professional musicians are now looking for ways to improve their lives in general, in physical ways and in mental respects. The implication from this research is that mindfulness should have a positive and beneficial impact on both working with physical problems, and in dealing with the multi-faceted stresses, anxieties, and mental health issues that plague professional musicians. Mindfulness courses are regularly available around the world and, from the current research, professional musicians should feel reassured that investing the time and energy required in doing a mindfulness course could be of immense benefit to them professionally and personally.

Indeed, for all musicians, it is possible to access mindfulness through mobile applications. As some mindfulness applications have demonstrated their efficacy in teaching mindfulness to the general public (Spijkerman, Pots, & Bohlmeijer, 2016), this would imply that Android or iPhone applications specifically designed to teach mindfulness skills couched in music-specific terms for students and professionals would be of great value. Musicians, with their nomadic lifestyle, are often not able to commit to long term interventions held in a regular place at a regular time. There is evidence that mindfulness applications can be beneficial to help reduce stress (Economides, Martman,

Bell, & Sanderson, 2018) and reduce mind wandering (Bennike, Wieghorst, & Kirk, 2017). Therefore, a targeted application, available whenever needed, perhaps just before going on stage or in the practice room, for example, could be beneficial.

The implication is also clear for music psychology and psychological research in general, that if future researchers include qualitative and other design elements within their studies, important effects of interventions can be discovered. The wide variety of experience expressed by the participants in both of the current studies in this research has given clear evidence of the importance of including qualitative research especially in such a nascent field as mindfulness and musicians. This study has shown that it is possible to conduct rigorous research using a mixed methods approach in order to provide strong evidence within the fields of contemplative and music psychology research.

11.5 Concluding remarks

According to the literature, music students are arriving at university and music college more stressed and anxious than they have before, so there is a clear benefit for institutions to provide adequate, specifically tailored, and evidence-based health and well-being interventions. In both of the current studies, the mindfulness intervention was reported by participants to have had a positive effect on student musicians whether they are at a university or a conservatoire, both musically and generally. For example, participants reported better abilities to learn instrumental technique, improved teacher/pupil relationships, described developing more efficient and effective

music practice, and found enhanced music and communication skills in rehearsal and ensembles. In performance, mindfulness has not just positively impacted on those with high levels of MPA as expected; it has also had positive effects in enhancing aspects of participants' performances, improving their experience and increasing performance enjoyment. The evidence from the exploratory study at the GSMD, and the rigorous replication of the pilot MfS course described in this thesis clearly supports the recommendation that mindfulness courses are made available throughout the music departments and music conservatoires in the UK. Mindfulness skills enhance the whole musician and should be made easily available for the benefits of all music students as skillful, healthy support during their student studies, and in preparation for their future professional lives.

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List of Abbreviations

ACT	Acceptance and Commitment Therapy
ASD	Autism Spectrum Disorder
AT	Alexander Technique
BCE	Before Common/Current Era
BMX	Bicycle Motorcross
BOS	Bristol Online Survey
C	College/Conservatoire (Leeds College of Music participant)
C Diaries	College/conservatoire anonymous diary entry (LCOM)
CAMS	Cognitive and Affective Mindfulness Scale
CBT	Cognitive Behavioural Therapy
CD	Compact Disk
CEP	College/conservatoire experimental participant/s (LCOM)
CfMRP	Centre for Mindfulness Research and Practice (Bangor University)
CRDI	Continuous Response Digital Interface
DBT	Dialectic Behaviour Therapy
EEG	Electroencephalogram
EP	Experimental participant/s (UoL or LCOM)
FFMQ	Five Facet Mindfulness Questionnaire
FMI	Freiburg Mindfulness Inventory
fMRI	Functional Magnetic Resonance Imaging
FV	Fitzmaurice Voicework
GCE	General Certificate of Education
GSMD	Guildhall School of Music and Drama
HE	Higher education
KIMS	Kentucky Inventory of Mindfulness Skills
KMPAI	Kenny Music Performance Anxiety Inventory
LCOM	Leeds College of Music
MAAS	Mindfulness Attention Awareness Scale
MAC	Mindfulness-Acceptance-Commitment
MAPPG	Mindfulness All-Party Parliamentary Group

MBCT	Mindfulness Based Cognitive Therapy
MBI	Mindfulness Based Intervention
MBPM	Mindfulness Based Pain and Illness Management
MBSR	Mindfulness Based Stress Reduction
MfM	Mindfulness for Musicians Questionnaire
MfPAS	Mindfulness for Performing Arts Students course
MfS	Mindfulness for Singers
MIND	Music Instruction Non-Deficit
MPA	Music Performance Anxiety
mPEAK	Mindful Performance Enhancement, Awareness, and Knowledge
MSPE	Mindful Sport Performance Enhancement
NATS	National Association of Teachers of Singing
NHS	National Health Service (UK)
NICE	National Institute for Clinical Excellence
NIH	National Center for Complementary and Integrative Health
NLP	Neuro-Linguistic Programming
PHLMS	Philadelphia Mindfulness Scale
PTSD	Post-traumatic Stress Disorder
RCT	Randomised Controlled Trial
SAD	Social Anxiety Disorder
SMQ	Southampton Mindfulness Questionnaire
SPSS	Statistical Package for the Social Sciences
STAI-Y	State-Trait Anxiety Inventory
U	University (University of Leeds participant)
U Diaries	University anonymous diary entry (UoL)
UEP	University experimental participant/s (UoL)
UoL	University of Leeds
WLC	Wait-list control participant/s (LCOM)
WLE	Wait-list experimental participant/s (LCOM)

Appendix

Appendix A - Five Facet Mindfulness Questionnaire (FFMQ)

FIVE FACET MINDFULNESS QUESTIONNAIRE

Please rate each of the following statements using the scale provided.

Circle the number that best describes your own opinion of what is generally true for you.

	never or very rarely true	rarely true	sometimes true	often true	very often or always true
1. When I'm walking, I deliberately notice the sensations of my body moving.	1	2	3	4	5
2. I'm good at finding words to describe my feelings.	1	2	3	4	5
3. I criticize myself for having irrational or inappropriate emotions.	1	2	3	4	5
4. I perceive my feelings and emotions without having to react to them.	1	2	3	4	5
5. When I do things, my mind wanders off and I'm easily distracted.	1	2	3	4	5
6. When I take a shower or bath, I stay alert to the sensations of water on my body.	1	2	3	4	5
7. I can easily put my beliefs, opinions, and expectations into words.	1	2	3	4	5
8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.	1	2	3	4	5
9. I watch my feelings without getting lost in them.	1	2	3	4	5
10. I tell myself I shouldn't be feeling the way I'm feeling.	1	2	3	4	5
11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.	1	2	3	4	5
12. It's hard for me to find the words to describe what I'm thinking.	1	2	3	4	5
13. I am easily distracted.	1	2	3	4	5
14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.	1	2	3	4	5
15. I pay attention to sensations, such as the wind in my hair or sun on my face.	1	2	3	4	5
16. I have trouble thinking of the right words to express how I feel about things.	1	2	3	4	5
17. I make judgments about whether my thoughts are good or bad.	1	2	3	4	5
18. I find it difficult to stay focused on what's happening in the present.	1	2	3	4	5
Please turn over.....					

FFMQ continued. Page 2.	never or very rarely true	rarely true	sometimes true	often true	very often or always true
19. When I have distressing thoughts or images, I “step back” and am aware of the thought or image without getting taken over by it.	1	2	3	4	5
20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.	1	2	3	4	5
21. In difficult situations, I can pause without immediately reacting.	1	2	3	4	5
22. When I have a sensation in my body, it’s difficult for me to describe it because I can’t find the right words.	1	2	3	4	5
23. It seems I am “running on automatic” without much awareness of what I’m doing.	1	2	3	4	5
24. When I have distressing thoughts or images, I feel calm soon after.	1	2	3	4	5
25. I tell myself that I shouldn’t be thinking the way I’m thinking.	1	2	3	4	5
26. I notice the smells and aromas of things.	1	2	3	4	5
27. Even when I’m feeling terribly upset, I can find a way to put it into words.	1	2	3	4	5
28. I rush through activities without being really attentive to them.	1	2	3	4	5
29. When I have distressing thoughts or images I am able just to notice them without reacting.	1	2	3	4	5
30. I think some of my emotions are bad or inappropriate and I shouldn’t feel them.	1	2	3	4	5
31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.	1	2	3	4	5
32. My natural tendency is to put my experiences into words.	1	2	3	4	5
33. When I have distressing thoughts or images, I just notice them and let them go.	1	2	3	4	5
34. I do jobs or tasks automatically without being aware of what I’m doing.	1	2	3	4	5
35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.	1	2	3	4	5
36. I pay attention to how my emotions affect my thoughts and behavior.	1	2	3	4	5
37. I can usually describe how I feel at the moment in considerable detail.	1	2	3	4	5
38. I find myself doing things without paying attention.	1	2	3	4	5
39. I disapprove of myself when I have irrational ideas.	1	2	3	4	5

Appendix B - Mindfulness for Musicians Questionnaire (MfM)

MINDFULNESS FOR MUSICIANS QUESTIONNAIRE

Please rate each of the following statements using the scale provided.
Circle the number that best describes your own opinion of what is generally true for you.

	never or very rarely true	rarely true	sometimes true	often true	very often or always true
1. When I am practising, I pay close attention to how things physically feel or sound as I am playing or singing.	1	2	3	4	5
2. It is difficult to describe clearly in words how I feel before I go on stage.	1	2	3	4	5
3. In instrumental or singing lessons, I always pay attention and never daydream or get distracted.	1	2	3	4	5
4. If people can hear me practising, I know it's irrational to worry and I criticize myself for worrying.	1	2	3	4	5
5. If I have a distressing thought in a singing or instrumental lesson, I am aware of it but don't let it bother me.	1	2	3	4	5
6. When learning technique in lessons, I notice new tiny muscular sensations or small changes in sound production as they happen.	1	2	3	4	5
7. It's hard for me to find the words to describe to others what I think or feel in rehearsal or practice sessions.	1	2	3	4	5
8. I suspect that I usually perform on automatic pilot.	1	2	3	4	5
9. I'm always criticizing myself in singing or instrumental lessons.	1	2	3	4	5
10. My private practice sessions are always affected by how well or badly my instrumental/singing lesson went.	1	2	3	4	5
11. If something unexpectedly happens when I am on stage, I notice it without reacting and easily carry on performing.	1	2	3	4	5
12. Performances always seem to have gone by in a big blur.	1	2	3	4	5
13. I can easily describe to others the physical sensations or emotions I feel when I sing or play my instrument.	1	2	3	4	5
14. I'm easily distracted when practising my voice or instrument.	1	2	3	4	5
15. Before performing, I tell myself that I shouldn't be thinking the way I'm thinking and criticize my feelings.	1	2	3	4	5

Appendix C - Scoring the FFMQ and the MfM Questionnaires

Questions 1-39

Ruth Baer, University of Kentucky

October 2005

Observe items:

1, 6, 11, 15, 20, 26, 31, 36

Describe items:

2, 7, 12R, 16R, 22R, 27, 32, 37

Act with Awareness items:

5R, 8R, 13R, 18R, 23R, 28R, 34R, 38R

Nonjudge items:

3R, 10R, 14R, 17R, 25R, 30R, 35R, 39R

Nonreact items:

4, 9, 19, 21, 24, 29, 33

Scoring the Mindfulness for Musicians added questions 1-15.

Anne-Marie Czajkowski, University of Leeds

June 2015

Observe items:

1, 6, 12R

Describe items:

2R, 7R, 13

Act with Awareness items:

3, 8R, 14R

Nonjudge items:

4R, 9R, 15R

Nonreact items:

5, 10R, 11

R= Reverse scored

Appendix D - MfS Study: Student Participant Interview Questions

General Question.

1. Please tell me about your experience doing this mindfulness course.
(Prompt - Session length, course length/duration, anything particularly useful/not useful. Have they discovered the choice of wider awareness or narrower concentration as desired in each moment?)
2. How did you find the home practice and diary part of the course?
(Prompt – Guided practice (CD) – what did they think of voice used and length of meditations?
Prompt – Use of mindfulness in daily life – did they manage it? Any revelations?)

Singing lessons

3. Did you manage to do the mindfulness techniques to prepare before lessons?
And before practice sessions? (Prompt- length, type)
4. Do you feel that doing this mindfulness course has affected your experience of learning to sing in lessons and/or practice sessions?
(Prompt – learning technique, teacher?)
5. What would you say about the mindfulness techniques in regards to learning singing?

Performance.

6. Have you had chance to perform this term?
(If Yes....)
7. Do you feel that the mindfulness course has had any impact on your experience as a performer?
(If No....)
- 7a. Have you had any situations this term where you have felt anxious or nervous?
(If Yes.... Return to question 7 – if No then abandon)

Final question.

8. Has doing the course had any impact in your daily life? Recommend? Continue?

Appendix E – GSMD Study: Participant Interview Questions

General Questions.

1. Please tell me about the practical experience of doing the mindfulness course.
(Prompt - Session length, course length/duration, venue, other people on the course)
2. Tell me about your experience of the home practice part of the course?
(Prompt – length of home practice achieved, easiness of doing home practice, opinions on the guided practices (CDs/mp3s)
3. Informal/Formal practice?
(Prompt – Use of mindfulness in daily life – did they manage it? Any revelations?)

Why did you choose to do a mindfulness course?

Instrumental Lessons

4. Are you having one-to-one instrumental/voice lessons?
Any effects of the mindfulness course/exercises in lessons? (Prompt – teacher?)
5. Are you learning voice/instrumental technique?
Any effects of the mindfulness exercises on learning technique?
6. How often do you practice your instruments/voice privately on your own? College or home usually?
Any effects of the mindfulness exercises or the course on this aspect?
7. I assume you do group/ensembles in rehearsals/classes?
Any effects of the mindfulness exercises or course on this aspect?
8. Conclusion: Has learning to be more mindful had any effect (bad or good) on your life as an instrumental/voice learner that hasn't been covered above?

Performance

9. Have you had chance to perform this term?
(If Yes....)
10. Do you feel that the mindfulness course has had any impact on your experience as a performer?
(If No....)
- 10a. Have you had any situations this term where you have felt anxious or nervous?
(If Yes....)
Do you feel that the mindfulness course had any impact in those situations?
(If No...then abandon)

Final questions.

11. Has doing the course had any impact in your daily life?
(Prompt – relationships with others, eating, sleeping etc)
12. Anything discovered from doing the M course that was particularly useful/not useful to them as a person?
13. Would you recommend the course to other music students?
Why?/Why not?
14. What were your fave mindfulness exercises and why?
15. Will you continue?

Appendix F - MfS Study: Teacher Participant Interview Questions

The effects of a targeted mindfulness course on student singers: A longitudinal study. Teacher Interview Questions.

Introduction

Thank you for meeting today. I'm a singing teacher of 20 years experience so feel free to talk technically.

Over the last 8 weeks I've been teaching (insert number) of your students mindfulness techniques which includes exercises in focused awareness or concentration, open awareness and open monitoring techniques as well as encouraging them to be more self-compassionate. So the sort of things you may or may not have noticed are changes in behaviour or learning in singing lessons, or people who demonstrated a different attitude to you or the lesson over the last few weeks.

Questions:

Bearing the above in mind, did you notice any of your students that you may suspect were doing the mindfulness course?

If no. Tell them who was.

Do they have anything to add now they know who was doing the course? Are they surprised that person had been learning attention training techniques? Any other thoughts?

If yes....

1. What did you notice that was different?
2. Did they approach or start to learn singing technique differently in lessons?
3. Did student's behaviour to yourself change at all?
4. Did they mention anything about performance that might be useful to note?
5. Were there any daily life experiences noted or noticed by you?
6. Were there any disadvantages to the course noted by the teacher?

Appendix G - MfS Study: MfS Blank Journal

Mindfulness for Singers Journal

Let me know your daily reflections and findings please.
As much as you like, just a sentence each day will do ☺

Week (circle) 1 2 3 4 5 6 7

		Mins
Day 1 Date:		
Day 2 Date:		
Day 3 Date:		
Day 4 Date:		
Day 5 Date:		
Day 6 Date:		

Thank you.

Appendix H - GSMD Study: Ethics Approval Letter (UoL)

Performance, Governance and Operations
 Research & Innovation Service
 Charles Thackrah Building
 101 Clarendon Road
 Leeds LS2 9LJ Tel: 0113 343 4873
 Email: ResearchEthics@leeds.ac.uk



UNIVERSITY OF LEEDS

Anne-Marie Czajkowski
 School of Music
 University of Leeds
 Leeds, LS2 9JT

PVAR Faculty Research Ethics Committee University of Leeds

13 August 2015

Dear Anne-Marie

Title of study: Exploring the effects of a mindfulness course on students at a music conservatoire.

Ethics reference: PVAR 14-101

I am pleased to inform you that the above research application has been reviewed by the Arts and PVAC (PVAR) Faculty Research Ethics Committee and I can confirm a favourable ethical opinion as of the date of this letter. The following documentation was considered:

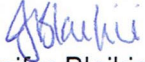
Document	Version	Date
PVAR 14-101 1 UoL MfM Ethical_Review_Form v1_150715.doc	1	22/07/15
PVAR 14-101 2 GSMD MfM Internal Ethics form_v1_150715.doc	1	22/07/15
PVAR 14-101 3 MfM Fieldwork_v1_220715.pdf	1	22/07/15
PVAR 14-101 4 MfM Participant Information Form_v1_150715.doc	1	22/07/15
PVAR 14-101 5 MfM Consent Form_v1_150715.doc	1	22/07/15
PVAR 14-101 6 MfM Participant Personal Details_v1_150715.doc	1	22/07/15
PVAR 14-101 7 MfM Participant Questionnaire Data pre_v1_150715.doc	1	22/07/15
PVAR 14-101 8 FFMQ+MfM Questionnaires_v4_150715.doc	1	22/07/15
PVAR 14-101 9 MfM Participant Questionnaire Data post_v1_150715.doc	1	22/07/15
PVAR 14-101 10 FFMQ+MfM Scoring_v1_150715.doc	1	22/07/15
PVAR 14-101 11 MfM Participant Interview Questions_1_150715.doc	1	22/07/15

Please notify the committee if you intend to make any amendments to the original research as submitted at date of this approval as all changes must receive ethical approval prior to implementation. The amendment form is available at <http://ris.leeds.ac.uk/EthicsAmendment>.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited. There is a checklist listing examples of documents to be kept which is available at <http://ris.leeds.ac.uk/EthicsAudits>.

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to ResearchEthics@leeds.ac.uk.

Yours sincerely



Jennifer Blaikie

Senior Research Ethics Administrator, Research & Innovation Service
On behalf of Dr Kevin Macnish, Chair, PVAR FREC

CC: Student's supervisor(s)

Appendix I - MfS Study: Ethics Approval Letter (UoL)

Performance, Governance and Operations
 Research & Innovation Service
 Charles Thackrah Building
 101 Clarendon Road
 Leeds LS2 9LJ Tel: 0113 343 4873
 Email: ResearchEthics@leeds.ac.uk



UNIVERSITY OF LEEDS

Anne-Marie Czajkowski
 School of Music
 University of Leeds
 Leeds, LS2 9JT

PVAC & Arts joint Faculty Research Ethics Committee University of Leeds

9 October 2015

Dear Anne-Marie

Title of study **The effects of a targeted mindfulness course on student singers: A longitudinal study.**
Ethics reference **PVAR 15-008**

I am pleased to inform you that the above research application has been reviewed by the Arts and PVAC (PVAR) Faculty Research Ethics Committee and following receipt of your response to the Committee's initial comments, I can confirm a favourable ethical opinion as of the date of this letter. The following documentation was considered:

Document	Version	Date
PVAR 15-008 PVAR 15-008 Committee Provisional Response 250915.doc	1	25/09/15
PVAR 15-008 09 MfS Student Information Sheet_v2_250915.doc	1	25/09/15
PVAR 15-008 17 MfS Teacher Information Sheet_v2_250915.doc	1	25/09/15
PVAR 15-008 01 MfS ETHICAL_Review_Form_v1_070915.doc	1	07/09/15
02 MfS Poster Teaser A4_v1_070915.docx	1	07/09/15
03 MfS Poster Teaser A3_v1_0709.docx	1	07/09/15
04 MfS Student Invitation Email_v1_070915.doc	1	07/09/15
05 MfS Invitation Poster_v1_070915.docx	1	07/09/15
06 MfS Control Invitation Email_v1_070915.docx	1	07/09/15
07 MfS Student Registration Form_v1_070915.doc	1	07/09/15
08 MfS Student Consent Form_v1_070915.doc	1	07/09/15
09 MfS Student Information Sheet_v1_070915.doc	1	07/09/15
10 MfS Student Yoga Consent form_v1_070915.doc	1	07/09/15
11 MfS Control Information Email and Consent Form_v1_070915.doc	1	07/09/15
12 FFMQ+MfM Questionnaires_v4_070915.doc	1	07/09/15
13 MfS Teacher Invitation Letter_v1_070915.doc	1	07/09/15
14 MfS Teacher email followup_v1_070915.doc	1	07/09/15
15 MfS Teacher Consent Form_v1_070915.doc	1	07/09/15
16 MfS Teacher Registration Form_v1_070915.doc	1	07/09/15
17 MfS Teacher Information Sheet_v1_070915.doc	1	07/09/15
18 FFMQ+MfM Scoring_v4_070915.doc	1	07/09/15
19 MfS Teacher Interview Questions_v1_070915.doc	1	07/09/15

20 MFS Student Interview Questions_v1_070915.doc	1	07/09/15
21 MFS Control Repeat Email_v1_070915.docx	1	07/09/15

The reviewers were generally happy with the response except for the point about the incentives:

Application section	Comment	Response required/ amended application required/ for consideration
Information sheet/ C16	<p>Committee's initial comments: The research promises a free course that would otherwise cost £250. There is a risk that this would influence students' decisions on participation – more needs to be said about how this would be addressed and mitigated as it is quite a high incentive.</p> <p>Your response: A basic 'Google' search on the internet for mindfulness courses can inform students of the normal price of an 8-week course so this is not specialised or restricted knowledge. £250 http://www.bangor.ac.uk/mindfulness/8weekcourse.php.en £250-£275 http://www.yorkmbsr.co.uk/MeditationandMindfulness-MBSR.htm £350 http://www.oxfordmindfulness.org/learn/public-programme</p> <p>Committee's additional comments: The committee wasn't suggesting that the information on the cost of the course was restricted, it was more that they were concerned that students would take part because they get access to a free course that otherwise costs £250, so they would take part in order to get the free course and therefore this could interfere with it being a free decision about whether to take part or not. Please consider how to ensure this didn't influence their decision.</p>	For consideration

Please notify the committee if you intend to make any amendments to the original research as submitted at date of this approval as all changes must receive ethical approval prior to implementation. The amendment form is available at <http://ris.leeds.ac.uk/EthicsAmendment>.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited. There is a checklist listing examples of documents to be kept which is available at <http://ris.leeds.ac.uk/EthicsAudits>.

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to ResearchEthics@leeds.ac.uk.

Yours sincerely



Jennifer Blaikie
Senior Research Ethics Administrator, Research & Innovation Service
On behalf of Dr Kevin Macnish, Chair, PVAR FREC

CC: Student's supervisor(s)

Appendix J - GSMD Study: Ethics Approval Letter (GSMD)

From the Principal
 Professor Barry Ife CBE
 FKC FBbk HonFRAM FRCM

Guildhall School
 of Music & Drama

Silk Street, Barbican
 London EC2Y 8DT
 Tel +44 (0)20 7628 2571
 gsmd.ac.uk

Private & Confidential
 Anne-Marie Czajkowski

14 September 2015

Dear Anne-Marie

Re: Research Ethics Application

Thank you for submitting your research ethics application titled *Exploring the effects of a mindfulness course on students at a music conservatoire*, which has been reviewed by the Research Ethics Committee.

I am delighted to confirm that the Committee are satisfied with the research proposal submitted and that full ethical approval has been granted for your project.

The Committee have confirmed however, that you must take into account the below points when carrying out this work, to support the School's operations and student engagement policy. This includes making slight adjustments to the questionnaire:

1. Student participation

Participant information sheet states:

"You have been chosen because you are about to embark on a mindfulness course and you are a music student studying at an advanced level".

More needs to be said about participant recruitment, as it is not clear how the students on the mindfulness course will be approached – as we do not allow direct approaches by email (as students would be inundated). You may provide a flyer which can be given to students on the course to contact you (if the tutor is willing for this to happen), and you can advertise in the student news and ezine (which may attract those who have done the course before).

2. Where are the interviews going to take place?

The researcher places the location of the research "On campus at the Guildhall School of Music and Drama, London". Therefore please liaise with me directly to make the room bookings.



THE GUILDHALL SCHOOL IS PROVIDED BY
 THE CITY OF LONDON CORPORATION

Guildhall School
of Music & Drama

3. Participant questionnaire

Are you a Music or Drama student? (please circle) Music Drama Joint

This should read as below:

Are you a Music, Drama, or Research student? (please circle)

Music Drama Research *(no-one is "joint")

However, that this question on the whole could be made clearer, given that the research specifies that participants are music students and more specifically singing students.

- 4. That Eliza McCarthy should be fully informed and involved, to ensure that the research does not impair the students' experience on their mindfulness training, nor undermine Eliza's teaching.**

Please note that you should report any untoward events or unforeseen ethical problems arising from the questionnaire to the Research Ethics Committee secretary within a week of the occurrence.

Any feedback which you provide to the participants of the project should be forwarded to the Guildhall School Ethics Committee Secretary for circulation to Committee members.

Should you have any queries relating to this letter, please do not hesitate to get in touch.

We wish you every success with this work.

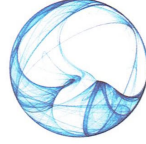
Yours Sincerely



Esther Fowler
Research Ethics Committee Secretary
Esther.Fowler@gsm.d.ac.uk

cc. Dr Cormac Newark, Head of Research

Appendix K - MfS Study: Ethics Approval Letter (LCOM)



LEEDS COLLEGE
of MUSIC

3 Quarry Hill
Leeds LS2 7PD

0113 222 3400
enquiries@lcm.ac.uk
www.lcm.ac.uk
@leedsmusic

Mindfulness for Singers

Dear Anne-Marie,

This note serves as 'Ethics Approval'
for your forthcoming study to take place
here in the college.

K.A. Joyce
HEAD OF STUDENT SERVICES.

A. J. Webb
Head of Postgraduate Studies

Appendix L – GSMD Study: Participant Information Form

Exploring the effects of a mindfulness course on students from a music conservatoire.

10/12/15

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if anything is not clear or if you would like more information. My details are at the bottom of this sheet. Take time to decide whether or not you wish to take part.

What is the purpose of the project?

Pilot research has shown that there could be many beneficial effects of doing a mindfulness course for student singers. The purpose of this research is to investigate the effects of a course in mindfulness on student singers and instrumentalists as learners, performers and in their daily lives.

The duration for the whole project is 2 years but your participation is minimal and is detailed below.

Why have I been chosen?

You have been chosen because you are about to embark on a mindfulness course and you are a music student studying at an advanced level. Hopefully between 80 and 100 participants will be recruited for the questionnaire element of the project and 20-24 students recruited for the additional paid interview.

What do I have to do?

There are two levels of involvement.

1. Fill out a questionnaire before and after the Mindfulness for Performing Arts Students course. It should only take you about 10 minutes to fill out the tick box question sheet. (£5 as compensation for time taken).
2. As above and also after the course partake in a private and confidential 20-30min interview (£10 to cover travel/expenses).

As the questionnaire tends to cover more general life experience, the interview will be asking questions specifically about your experience of learning mindfulness on your life as a music student (lessons/practice/learning instrument technique etc.) and as a performer. This is in order to get a deeper picture of the effects of the course on you as a musician.

Do I have to do it?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form) and you can withdraw at any time before analysis (tbc) without it affecting you in any way. You do not have to give a reason, just let me know via my email below so I can take your data out before analysis.

What are the possible disadvantages of taking part?

There are no anticipated disadvantages.

What are the possible benefits of taking part?

Research has indicated that a mindfulness course should be beneficial in the many areas of a musician's life. There is no particular benefit for you personally in taking part in this project but you will be helping us to understand what, if any, effects are to be gained from doing a mindfulness course for musicians. This project could have an impact on the availability of such courses and their funding in the future.

Will my taking part in this project be kept confidential and what will happen to the results of the research project?

All the information that we collect about you during the course of the research will be kept strictly confidential. Interviewees' names are anonymised and you will not be able to be identified by others in any reports or publications. In the event of this research being published, you will be notified when, where and how to obtain a copy. Data will be kept for 10 years after publication after which it will be securely and safely destroyed. This research is for completion of the PhD in Applied Psychology of Music at Leeds University.

The audio recordings of interviews made during this research will be anonymised and will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

If any data arises in the interview that is contrary to laws of the country or demonstrating significant emotional or personal risk, appropriate advice will be taken from Guildhall School of Music staff as to their protocols in these matters.

The University of Leeds is the data controller and Adrian Slater a.j.slater@adm.leeds.ac.uk is currently the representative to whom you can take any complaints or concerns.

Who is organizing/funding the research?

All organization and any funding is provided by the researcher. £10 is offered each interview participant at the end of the interview in thanks for their participation to help cover travel and expenses.

Contact for Further Information

Researcher: Anne-Marie Czajkowski : mc11amlc@leeds.ac.uk

Supervisor: Dr Alinka Greasley A.E.Greasley@leeds.ac.uk

Finally:

You will be given a copy of this information sheet and a consent form to keep identical to one you have signed to agree to participating in this research.

Thank you very much for taking the time to read through this information.

Ethics Approval Reference and date: University of Leeds PVAR 14-101
(Approval Amendment due to poor participant uptake 10.12.15)

Appendix M - MfS Study: Participant Information Form

(Experimental)

The effects of a targeted mindfulness course on student singers: A longitudinal study **Student Information Sheet 7.9.15**

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Mindfulness – the background

“Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 2004, p.4). Judgmentally, in this definition means without emotional self-criticism.

Mindfulness is currently available on the NHS for those with chronic depression.

However, research has also indicated its usefulness in the areas of education, sport, business and, recently, music education.

Project Aim

The aim of this project is to investigate the usefulness of a course in Mindfulness for student singers. You have been chosen because you are a student studying advanced voice with a teacher at university and because you will be utilising your singing skills in performance.

Do I have to do it?

It is up to you to decide whether or not to take part. You have anytime up to a week to decide. If you do take part you can still withdraw from the course at any time and have any data destroyed until the start of analysis (30.6.16). You do not have to give a reason.

What do I have to do?

1. Fill in registration form and consent administration.
2. Fill in a short questionnaire both before and after the course.
3. Attend a mindfulness course from January to February. The course offered is an adapted version of the MBSR (Mindfulness Based Stress Reduction) course developed for singers. It is of 8 weeks x 1 hours duration.
4. 15 minutes of home practice with a provided CD/MP3 tracks for 6/7 days per week for the duration of the course preferably just before singing lessons/practice or performance situations.
5. A recorded interview of 15-20 mins duration immediately after the course to find out your thoughts and another one 3 months later to find out any long term effects.
6. A course length anonymous ongoing diary to record your thoughts or insights gained from the course.

What are the possible benefits or disadvantages of taking part?

There are no anticipated disadvantages and research has indicated that a Mindfulness course should be beneficial in the following areas of a singer's life:

Learning:

Learning singing technique and micro-muscular movement awareness.
Dealing with criticism and lesson stress and anxiety. Teacher/pupil relations.
Changing/enhancing practice behaviours.

Performance:

Dealing with nerves, stress, anxiety, fear and panic. Encourage 'flow' experience.
Wide and narrow concentration and attention focus control. Orchestra/cast/audience awareness. Stage movement and acting. Moment by moment creativity. Memory.

Life skills:

Career stress, criticism and networking skills. Sleep and relaxation.
Health awareness. Worry and anxiety.

Not all of the above possible effects are being investigated but to avoid bias, the precise area of investigation will be revealed after the interviews.

What type of information will be sought from me?

Your name, age and gender, your singing teacher's name and your email/phone contact details will be needed for demographic and contact purposes.

Will my taking part in this project be kept confidential and what will happen to the results of the research project?

All the information that we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports of publications. In the event of this research being published, you will be notified when, where and how to obtain a copy. This research is for completion of the PhD in Applied Psychology at Leeds University. Data will be archived at the Research Data Leeds repository.

The anonymised audio recordings of your interviews made during this research will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

Who is organizing/funding the research?

Funding is provided by University of Leeds 110 Anniversary Scholarship. £20 is offered to each student at the final interview in thanks for their participation.
Contact: Anne-Marie Czajkowski: mc11amlc@leeds.ac.uk 0113 286 2513

Finally:

You will be given a copy of this information sheet and a consent form to keep identical to one you have signed to agree to participate in this research.

Thank you very much for taking the time to read through this information.

Ethics Approval Reference: PVAR 15-008

Appendix N - MfS Study: Teacher Information Sheet

The effects of a targeted mindfulness course on student singers: A longitudinal study

Participant Information Sheet (Teachers)

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Mindfulness – the background

“Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 2004, p.4). Judgmentally, in this definition means without emotional self-criticism.

Mindfulness is currently available on the NHS for those with chronic depression. However, research has also indicated its usefulness in the areas of education, sport and business and recently in music education.

“Parents and teachers tell kids 100 times a day to pay attention, but we never teach them how.” (Goldin, 2007)

Project Aim

The aim of this project is to investigate the effects of a course in Mindfulness for student singers in more depth and over a longer time period. You have been chosen because you are experienced in teaching vocal technique and performance skills at a high level and because you are teaching the students who are participating in the study from both before, during and after the course intervention.

Do I have to do it?

It is up to you to decide whether or not to take part. You have up to a week to decide. If you do take part you will be given this information sheet to keep (and be asked to sign a consent/registration form) and you can still withdraw at any time and withdraw any data up to the start of analysis (30.6.15). You do not have to give a reason.

What do I have to do?

1. Reflect on any observed behaviour, learning, practice or performance changes in your students over the second Semester.
2. Take part in a short 15-20 minute one-to-one confidential interview after the intervention course in March and a second one 3 months later in June to find out any long term effects.

What are the possible benefits/disadvantages of taking part?

A previous pilot study on Mindfulness for Singers a wide variety of the benefits of daily mindfulness exercises on learning singing technique such as improved aural and physical sensory awareness which led to better memory, application, and transferal of

new technique into practice and performance. Participants experienced greater awareness and improvement of their vocal sound, tone colour and text communication. Problem solving, such as dealing with extraneous vocal tension, was easier, quicker, and effective. Mindfulness exercises also positively affected other aspects of singing such as teacher/pupil relationships, concentration and focus in lessons, practice, performance anxiety, performance creativity, taking criticism and daily life. There are no anticipated disadvantages.

What type of information will be sought from me?

Your name, gender and your email contact details will be needed for demographic and contact purposes.

Will my taking part in this project be kept confidential and what will happen to the results of the research project?

All the information that we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports of publications. In the event of this research being published, you will be notified when, where and how to obtain a copy. This research is for completion of the PhD in Applied Psychology at Leeds University. Data will be archived at the Research Data Leeds repository

The anonymised audio recordings of your interviews made during this research will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

Who is organizing/funding the research?

Funding is provided by University of Leeds 110 Anniversary Scholarship. You will be paid at University pro-rata fees in thanks for your participation.

Contact: Anne-Marie Czajkowski: mc11amlc@leeds.ac.uk 0113 286 2513

Finally:

You will be given a copy of this information sheet and a consent form to keep identical to one you have signed to agree to participating in this research.

Thank you very much for taking the time to read through this information.

Ethics Approval Reference: PVAR 15-008

Appendix O - MfS Study: Information Sheet and Consent Form

(Control)

Mindfulness for Singers Information Email and Consent Form

Thank you for agreeing to participate in my project. It's called "The effects of a targeted mindfulness course on student singers: A longitudinal study."

Please take time to read the following information carefully and ask if there is anything that is not clear or if you would like more information.

Project Aim - is to investigate the usefulness of a course in Mindfulness for student singers. You have been asked to participate because you are a student studying voice at University

What do I have to do?

Fill in a short questionnaire in January and another in March.

Do I have to do it? - It is up to you to decide whether or not to take part. You have anytime up to a week to decide. If you do take part you can still withdraw at any time and have any data destroyed until the start of analysis. You do not have to give a reason.

What do I get and when?

You will be sent £4 via Paypal on receipt of the second survey response as a thanks for taking time to fill out the questionnaires. There are no other anticipated disadvantages or benefits for participating.

What type of information will be sought from me?

An anonymised identifier, your age, gender and email address (for contact and payment purposes only)

All the information collected about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports of publications. In the event of this research being published, you will be notified when, where and how to obtain a copy. This research is for completion of the PhD in Applied Psychology at Leeds University.

Who is organizing/funding the research?

Funding is provided by University of Leeds 110 Anniversary Scholarship.

VERY IMPORTANT: Consent

Please read through the statements below.

1. I confirm that I have read and understand the information in the email above explaining the research project and I have had the opportunity to ask questions about the project.

2. I agree for the data collected from me to be stored and used in relevant future research in an anonymised form and kept in archive at the University of Leeds.
3. I understand that relevant sections of the data collected during the study, may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.
4. I agree to take part in the above research project and will inform the lead researcher should my contact details change.

If you are happy with these 4 statements and the information in this email, please now fill in the Questionnaire.

[LINK TO ONLINE SURVEY](#)

Contact: Anne-Marie Czajkowski: mc11amlc@leeds.ac.uk 0113 286 2513

Thank you very much for taking the time to read through this information.

Ethics Approval Reference: PVAR 15-008

Appendix P – GSMD Study: Consent form

Exploring the effects of a mindfulness course on students from a music conservatoire. Consent Form

	Add your initials next to the statements you agree with
I confirm that I have read and understand the information sheet dated 15 July 2015 explaining the above research project and I have had the opportunity to ask questions about the project.	
I agree for the data collected from me to be stored and used in relevant future research in an anonymised form and kept in archive at the University of Leeds.	
I understand that relevant sections of the data collected during the study, may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in the above research project and will inform the lead researcher should my contact details change.	

Name of participant	
Participant's signature	
Date	
Name of lead researcher /person taking consent	Anne-Marie Czajkowski/Eliza McCarthy
Signature	
Date*	

*To be signed and dated in the presence of the participant.

Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/ pre-written script/ information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be kept with the project's main documents which must be kept in a secure location.

Appendix Q - MfS Study: Consent Form (Experimental)

School of Music, Faculty of Performance, Visual Arts and Communications



UNIVERSITY OF LEEDS

The effects of a targeted mindfulness course on student singers: A longitudinal study.

Student Consent Form

	Add your initials next to the statements you agree with
I confirm that I have read and understand the information sheet dated 7 September 2015 explaining the above research project and I have had the opportunity to ask questions about the project.	
I agree for the data collected from me to be stored and used in relevant future research in an anonymised form and kept in archive at the University of Leeds.	
I understand that relevant sections of the data collected during the study may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in the above research project and will inform the lead researcher should my contact details change.	

Name of participant	
Participant's signature	
Date	
Name of lead researcher /person taking consent	Anne-Marie Czajkowski
Signature	
Date*	

*To be signed and dated in the presence of the participant.

Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/ pre-written script/ information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be kept with the project's main documents which must be kept in a secure location.

Appendix R - MfS Study: Teacher Consent Form

School of Music, Faculty of Performance, Visual Arts and Communications



UNIVERSITY OF LEEDS

The effects of a targeted mindfulness course on student singers: A longitudinal study.

Teacher Consent Form

	Add your initials next to the statements you agree with
I confirm that I have read and understand the information sheet dated 7 September 2015 explaining the above research project and I have had the opportunity to ask questions about the project.	
I agree for the data collected from me to be stored and used in relevant future research in an anonymised form and kept in archive at the University of Leeds.	
I understand that relevant sections of the data collected during the study may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in the above research project and will inform the lead researcher should my contact details change.	

Name of participant	
Participant's signature	
Date	
Name of lead researcher /person taking consent	Anne-Marie Czajkowski
Signature	
Date*	

*To be signed and dated in the presence of the participant.

Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/ pre-written script/ information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be kept with the project's main ~~documents which~~ must be kept in a secure location.

Appendix S – GSMD Study: Participant Personal Details

Exploring the effects of a mindfulness course on students from a music conservatoire.

Participant Personal Details

Name.....

Please print your email address clearly so you can be informed about results from this study.

EMAIL:.....

Would you like to be interviewed at the end of the course for 20-30mins and earn £10 in thanks to help cover travel/expenses?

Y / N Phone Number if Y
.....

Today's Date.....

Appendix T – GSMD Study: Participant Questionnaire Data

Exploring the effects of a mindfulness course on students from a music conservatoire.

Participant Questionnaire Data

Anonymous Identifier.....

(Your Initials and first 4 digits of your Date of Birth please.
For example, Annie Czajkowski, 5 August 1991 = AC0508)

Identified Gender.....

Age.....

Are you a... Music Drama Research student (please circle)?

Principle Instrument.....

Secondary Instruments.....

Today's Date.....

Appendix U - GSMD Study: Ethics Amendment Approval (UoL)

Performance, Governance and Operations
 Research & Innovation Service
 Charles Thackrah Building
 101 Clarendon Road
 Leeds LS2 9LJ Tel: 0113 343 4873
 Email: ResearchEthics@leeds.ac.uk



UNIVERSITY OF LEEDS

Anne-Marie Czajkowski
 School of Music
 University of Leeds
 Leeds, LS2 9JT

**PVAR Faculty Research Ethics Committee
 University of Leeds**

14 December 2015

Dear Anne-Marie

Title of study: Exploring the effects of a mindfulness course on students at a music conservatoire.
Ethics reference: PVAR 14-101, amendment Dec 2015

I am pleased to inform you that your amendment to the research application listed above has been reviewed by a delegate of the Arts and PVAC (PVAR) Faculty Research Ethics Committee and I can confirm a favourable ethical opinion as of the date of this letter. The following documentation was considered:

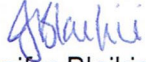
Document	Version	Date
PVAR 14-101 amendment Dec 2015 PVAR 14-101 Amendment_form.doc	1	11/12/15
PVAR 14-101 amendment Dec 2015 4 MfM Participant Information Form_v2_111215.doc	1	11/12/15
PVAR 14-101 1 UoL MfM Ethical_Review_Form v1_150715.doc	1	22/07/15
PVAR 14-101 2 GSMD MfM Internal Ethics form_v1_150715.doc	1	22/07/15
PVAR 14-101 3 MfM Fieldwork_v1_220715.pdf	1	22/07/15
PVAR 14-101 4 MfM Participant Information Form_v1_150715.doc	1	22/07/15
PVAR 14-101 5 MfM Consent Form_v1_150715.doc	1	22/07/15
PVAR 14-101 6 MfM Participant Personal Details_v1_150715.doc	1	22/07/15
PVAR 14-101 7 MfM Participant Questionnaire Data pre_v1_150715.doc	1	22/07/15
PVAR 14-101 8 FFMQ+MfM Questionnaires_v4_150715.doc	1	22/07/15
PVAR 14-101 9 MfM Participant Questionnaire Data post_v1_150715.doc	1	22/07/15
PVAR 14-101 10 FFMQ+MfM Scoring_v1_150715.doc	1	22/07/15
PVAR 14-101 11 MfM Participant Interview Questions_1_150715.doc	1	22/07/15

Please notify the committee if you intend to make any further amendments to the original research as submitted at date of this approval as all changes must receive ethical approval prior to implementation. The amendment form is available at <http://ris.leeds.ac.uk/EthicsAmendment>.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to ResearchEthics@leeds.ac.uk.

Yours sincerely



Jennifer Blaikie

Senior Research Ethics Administrator, Research & Innovation Service

On behalf of Dr Kevin Macnish, Chair, PVAR FREC

CC: Student's supervisor(s)

Appendix V - GSMD Study: Ethics Amendment Approval (GSMD)

RE: ~~Research Ethics Element change~~ F

Subject: RE: Research Ethics Element change
From: Esther Fowler <Esther.Fowler@gsmd.ac.uk>
Date: 13/01/2016, 12:57
To: 'Anne-Marie Czajkowski' <a.m.l.czajkowski@gmail.com>

Dear Annie,

I wished to write back to you to confirm that this project change is acceptable in terms of ethics, and your ongoing research.

Thank you for keeping us up to date.

With best wishes,

Esther

Esther Fowler
 Senior Research Coordinator
 Guildhall School of Music & Drama
 Milton Court, 1 Milton Street,
 London EC2Y 9BH

Tel: +44 (0)207 628 2571 Ex. 5104 (Mon, Tues, Fri)
 Tel: +44 (0)207 382 7142 (Wed & Thurs)

Follow the Guildhall School on [Facebook](#) and [Twitter](#) for our latest news and events.
www.gsmd.ac.uk

From: Anne-Marie Czajkowski [mailto:a.m.l.czajkowski@gmail.com] E
Sent: 10 December 2015 17:14
To: Esther Fowler
Subject: Research Ethics Element change

Dear Esther,

I would like to change an element of my project "Exploring the effects of a mindfulness course on students at a music conservatoire." The reason for the change is as follows:

Round 1 resulted in high numbers of pre-intervention questionnaire participants but a low return on the post-intervention questionnaires. Next time, I would like to introduce a £5 incentive to those musician's only doing the questionnaire. I hope that is okay with you. Please advise me if I need to fill out any amendment forms, otherwise I will just go ahead with this amendment.

Best wishes

Annie
 A.M.L. Czajkowski
 Graduate Research Student

Appendix W - Mindfulness exercises explained

Thought Buses or Clouds

In this exercise, participants notice thoughts arising and imagine these thoughts as a mental bus ride. If the thoughts are negative, they can imagine that the bus is taking them where they do not want to go and mentally “get off” the thought bus.

For thought clouds, participants imagine that their mind is a skyscape and their thoughts are clouds passing by. Clouds can be both small and fluffy or large and threatening. Participants are encouraged to categorise their thoughts in a similar way and observe them pass by. They come and they go. They never stay forever.

Breathing Awareness Exercise

This exercise is usually the first exploration into breath awareness. Participants are asked to come into an attentive sitting posture with both feet flat on the floor and hands comfortably placed and, if they feel comfortable, to close their eyes or gaze gently at the floor before them. They are then asked to become aware of the most obvious sensation of breathing and, once that is established, to put their right hand on that place. After a short while, they are asked to put their left hand on the next most obvious breathing sensation. After another short time, participants are asked to open their eyes and look where everyone has placed their hands in order to explore the concept that we all experience something as simple as breathing in different ways.

3-Minute Breathing Space

The 3-minute breathing space is a quick exercise that is particularly useful in stressful times. One starts by becoming aware of what there is in the moment for one minute: emotions, thoughts, feelings, sensations, situation. Then in the second minute, one focuses wholeheartedly on the sensation of breathing. Then in the third minute, one “breathes into” the emotions/thoughts/feelings/sensations/situation and chooses to take the next action mindfully.

Breathing Journey Exercise

This exercise is a mixture between mindful breathing exercises and the Body Scan. It was specifically designed for singers by the researcher but could be used by anyone wanting to gain an in-depth mindful awareness of their breathing mechanism.

Participants start by coming into an attentive sitting posture and become aware of their normal breathing. They are then guided to place their mind in turn on different parts of the breathing anatomy. The mind is focused at first on the sensation of breath at the tip of the nose, then in the sinus, then the throat, then the lungs expanding and contracting, then the diaphragm rising and falling, the abdominal muscles moving in sympathy below, the lower back,

the middle back (behind the diaphragm), the upper back and maybe shoulders and upper arms moving in sympathy with the ribcage movement, they are asked to imagine the breath in the back of the neck and then take attention finally back to the tip of the nose. If the mind is distracted, participants are encouraged to acknowledge where the mind went and then bring it back to the focus of attention without negative self-judgment.

Mindful Movement

This is a yoga type exercise that is done standing up. Participants are asked to stand in an attentive manner with their feet slightly apart and firmly on the ground and head “in the clouds” (Mountain Pose) becoming aware of their breathing and then transferring attention to the sensations they feel in the body posture at that moment. Each subsequent movement is then experienced sensorially in the moment that it is happening and once movement has stopped, a quick “body scan” is done to assess changes, and then the mind is brought back to the breath. Bringing the mind to the breath whilst in a pose can enable that pose to become stable, relaxed, and can last for far longer than the participant expected. A variety of yoga type poses and movements can be used for this exercise.

Movements used in the MfS Course are detailed in Appendix AJ and were ones that would be specifically of use to singers focus on posture and sensations in the back, neck, and shoulders.

Body Scan

Participants are usually supine for this exercise and after coming into the present moment, breathing, and settling in to the practice, will mentally “place” their mind on and in each part of the body in turn thus developing focused awareness and enhanced proprioception. This practice can take a few seconds for a quick body scan, but is more likely to take about 30-40 minutes. Participants can work from the bottom of the body to the head, from the head to the feet, or from the central breathing mechanism outwards. The Body Scan for the MfS was modified and extended for singers to include specific prompts to be aware of the jaw, the tongue, the lips, the soft palate, and the larynx, which are particular vocal principles used in singing technique.

Breathing Counting

This is a ten-minute breathing exercise usually done in a sitting position. After settling into a seated but attentive posture, the participant is encouraged to be aware of the sensations of normal breathing and drop a count of 1 at the end of the first breath, a count of 2 at the end of the second and so on. Once the tenth breath has been counted, the participant returns to 1 and repeats the process. At any time that the mind slips away and is noticed by the participant, they are asked to simply return the mind to the breath and start again from 1 with no judgmental thoughts of failure for losing concentration. For variety, participants can choose to drop the counts at the beginning, middle or end of breaths.

Mindful Eating

This is an exercise to work on being judgmental, being critical, being in the moment, avoid “cataloguing” and improve sensation awareness. Participants in the MfS were guided through the following points with a raisin, and then chocolate. Most MBSR or MBCT courses only use a raisin.

“Take the raisin, explore it as though you had never seen one before.”

1. See it (explore with eyes).
2. Hold it (weight/shadow).
3. Touch it (swap hands, explore with fingers).
4. Smell it (maybe no smell...).
5. MINDFULLY Place it in your mouth – no chewing. Notice what your arm does, mouth does, tongue does to receive it. Start to explore it with your tongue.
6. Chew it. Consciously bite into it. Taste, texture, notice what happens in the mouth. Hear the sound of chewing.
7. Swallow it. Feel the “wanting to swallow it” feeling. What does the tongue do to prepare for a swallow? Follow the sensation of swallowing all down.
8. After effects. Aftertaste, note the absence of it, is there an automatic tendency to have another?”

The participants in the MfS course were introduced to the idea that this exercise is using the same muscles and body parts as those used for pronunciation (correct production of sounds of words), and enunciation (singing words clearly).

Mindful Listening

This informal type of practice can be done in a variety of ways using music, or listening to others, or listening to naturally occurring sounds around.

Music Mindful Listening: This exercise encouraged the listening of one piece of music every day, being in the moment for every note and breathing into the physical/emotional or mental sensations brought about by the music. Participants encouraged to listen to disliked music as well as music they like.

Mindful Sounds practice: Participants were asked to be aware of their breathing and then to be aware of sounds around them. In a music practice block, this meant a lot of different sounds could be heard, including the air conditioning.

Mindfully listening to others: We rarely truly listen to others talk, either socially or educationally. We often listen to the first part of the information and are already formulating a verbal response, or “cataloguing” the content before the speaker is finished. In this exercise, pairs of participants listened to each other talk for a specified length of time with the instruction to attempt to listen closely, attentively, and mindfully without

pre-forming a response. In the case of the MfS course, participants were asked to talk about a singing related event.

Sounds and Thoughts

This is a formal listening exercise and an introduction to open monitoring awareness. Participants are encouraged to listen to sounds coming and going around them, which then leads to listening to thoughts coming and going in the mind. The connection being that sounds arise, linger and go without bidding just like thoughts.

The instruction is to open to sounds as they arise and notice a tendency to name and judge those sounds. Notice how easily distractions can come or how easy it is to make them into a story but is it possible to hear the raw sensations of sound and sounds within sounds? This has a direct correlation with music aural lessons where sounds are analysed as long, short, staccato, high, low, intermittent or continuing, for example. Then participants attempt to shift their focus of attention to thoughts, just letting them come and go without trying to get involved deeply in them. This is likened to seeing pictures and sounds arise on a cinema screen but staying in the audience without getting up and taking part. If one finds oneself getting up and taking part, the instruction is to bring yourself back to your seat and ground the self in some mindful breathing as an anchor or stabiliser without criticism or negative self-judgment.

Mindful Walking

Mindful walking is a focused attention practice and usually involves walking very slowly and mindfully around a room. Participants are encouraged to become very aware of balance, foot and leg movement, posture, boredom, and breathing or whatever they chose to focus on.

The MfS Course, being geared towards singers, took this concept further into becoming aware of normal walking in comparison to walking on stage to perform. Participants observed and experienced walking and discussed what they saw and felt in comparison to what was trying to be projected.

Mindful walking can also develop open monitoring. Participants on the MfS Course also did a pre-prepared 10-15 minute mindful walk around their institution with the main instruction to only talk about things they experienced in the present moment and to avoid chatting. The mindful walk involved walking at normal speed through indoor and outdoor spaces, different acoustics (which the participants were encouraged to explore vocally), and different underfoot terrain (i.e., grass/concrete/steps/carpet). They were encouraged to use every sense to explore the space through which they travelled and observe how different spaces affected their thoughts and mood.

Exploring Difficulties

In this exercise, participants meditate on past or present problems that arise in the mind using a mindful and self-compassion-based mindset. In the MfS course, participants were encouraged to practice this by first working on a memory that was not too stressful, a mild example of music performance anxiety, for example. Then, if they wished, to use this technique to explore other difficulties in their lives always remembering that the breath is there as an anchor and to treat themselves with kindness and self-compassion (Loving Kindness exercise).

Loving Kindness

The Loving Kindness exercise is an exercise where one offers good thoughts firstly to oneself, then to close friends, then to acquaintances, to strangers in the wider world and finally, if required, to difficult people. It is often part of other exercises, such as the Exploring Difficulties exercise and can teach self-acceptance, self-care, and empathy.

Nourishing and Depleting exercise

In this exercise, one notes down nourishing and depleting activity patterns during the day and meditates on the outcome. Maybe in future, one might chose to break up depleting activities with nourishing moments (i.e. mindfulness or a walk) to develop resilience.

Appendix X - MfS Study: Ethics Amendment Approval (UoL)

Performance, Governance and Operations
 Research & Innovation Service
 Charles Thackrah Building
 101 Clarendon Road
 Leeds LS2 9LJ Tel: 0113 343 4873
 Email: ResearchEthics@leeds.ac.uk



UNIVERSITY OF LEEDS

Anne-Marie Czajkowski
 School of Music
 University of Leeds
 Leeds, LS2 9JT

**PVAC & Arts joint Faculty Research Ethics Committee
 University of Leeds**

7 June 2016

Dear Anne-Marie

Title of study **The effects of a targeted mindfulness course on student singers: A longitudinal study.**
Ethics reference **PVAR 15-008 amendment June 2016**

I am pleased to inform you that your amendment to the research application listed above has been reviewed by a representative of the Arts and PVAC (PVAR) Faculty Research Ethics Committee and I can confirm a favourable ethical opinion as of the date of this letter. The following documentation was considered:

Document	Version	Date
PVAR 15-008 amendment June 2016 01 MfS ETHICAL_Review_Form_v2_060616.doc	1	06/06/16
PVAR 15-008 amendment June 2016 04 MfS Student Invitation Email_v2_210416.doc	1	03/06/16
PVAR 15-008 amendment June 2016 05 MfS Invitation Poster_v2_210416.docx	1	03/06/16
PVAR 15-008 amendment June 2016 06 MfS Control Invitation Email_v2_210416.docx	1	03/06/16
PVAR 15-008 amendment June 2016 07 MfS Student Registration Form_v2_210416.doc	1	03/06/16
PVAR 15-008 amendment June 2016 09 MfS Student Information Sheet_v3_210416.doc	1	03/06/16
PVAR 15-008 amendment June 2016 11 MfS Control Information Email and Consent Form_v2_210416.doc	1	03/06/16
PVAR 15-008 amendment June 2016 Ethics Amendment form for LCoM.doc	1	03/06/16
PVAR 15-008 amendment June 2016 Fieldwork Assessment form for LCoM MfS.pdf	1	03/06/16
PVAR 15-008 PVAR 15-008 Committee Provisional Response 250915.doc	1	25/09/15
PVAR 15-008 09 MfS Student Information Sheet_v2_250915.doc	1	25/09/15
PVAR 15-008 17 MfS Teacher Information Sheet_v2_250915.doc	1	25/09/15
PVAR 15-008 01 MfS ETHICAL_Review_Form_v1_070915.doc	1	07/09/15
02 MfS Poster Teaser A4_v1_070915.docx	1	07/09/15
03 MfS Poster Teaser A3_v1_070915.docx	1	07/09/15
04 MfS Student Invitation Email_v1_070915.doc	1	07/09/15
05 MfS Invitation Poster_v1_070915.docx	1	07/09/15
06 MfS Control Invitation Email_v1_070915.docx	1	07/09/15
07 MfS Student Registration Form_v1_070915.doc	1	07/09/15
08 MfS Student Consent Form_v1_070915.doc	1	07/09/15
09 MfS Student Information Sheet_v1_070915.doc	1	07/09/15
10 MfS Student Yoga Consent form_v1_070915.doc	1	07/09/15
11 MfS Control Information Email and Consent Form_v1_070915.doc	1	07/09/15

12 FFMQ+MfM Questionnaires_v4_070915.doc	1	07/09/15
13 MfS Teacher Invitation Letter_v1_070915.doc	1	07/09/15
14 MfS Teacher email followup_v1_070915.doc	1	07/09/15
15 MfS Teacher Consent Form_v1_070915.doc	1	07/09/15
16 MfS Teacher Registration Form_v1_070915.doc	1	07/09/15
17 MfS Teacher Information Sheet_v1_070915.doc	1	07/09/15
18 FFMQ+MfM Scoring_v4_070915.doc	1	07/09/15
19 MfS Teacher Interview Questions_v1_070915.doc	1	07/09/15
20 MfS Student Interview Questions_v1_070915.doc	1	07/09/15
21 MfS Control Repeat Email_v1_070915.docx	1	07/09/15

Please notify the committee if you intend to make any further amendments to the original research as submitted at date of this approval as all changes must receive ethical approval prior to implementation. The amendment form is available at <http://ris.leeds.ac.uk/EthicsAmendment>.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited. There is a checklist listing examples of documents to be kept which is available at <http://ris.leeds.ac.uk/EthicsAudits>.

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to ResearchEthics@leeds.ac.uk.

Yours sincerely

Jennifer Blaikie

Senior Research Ethics Administrator, Research & Innovation Service
On behalf of Dr Kevin Macnish, Chair, [PVAR FREC](#)

CC: Student's supervisor(s)

Appendix Y - MfS Study: Information Poster

Do you **worry** even when you can do nothing about it?

Would you like to control **performance nerves** better?

Would you like to **learn** more effectively?

Do you find it hard to **'switch off'** at night sometimes?

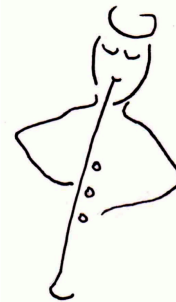
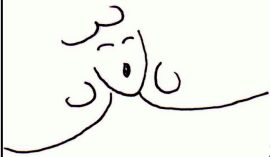
Mindfulness

Mindfulness is simply learning to be aware in the present moment.

Sounds simple? You think you're already aware?

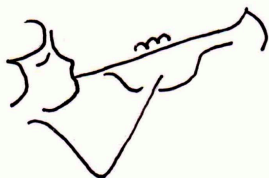
Our minds keep us living in a subconscious 'movie' world, in the past or the future, but rarely in the present.

But stuff is happening right here, right now!



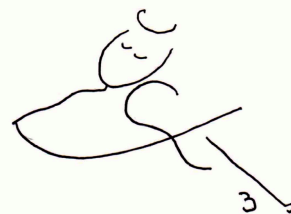
Research suggests that doing a Mindfulness Course could help musicians develop better performing, learning and life skills strategies.

...as seen at the Guildhall School of Music and Drama!



Annie's Big PhD Research Project

COMING SOON



Appendix Z - MfS Study: Invitation Poster

Starting
January 2016

Mindfulness for Singers

A free course AND £20 for research participation!

Are you a singer? Having voice lessons at Uni?
Free for just one hour each week next term?

Only 10 Places!

Then contact Annie – mc11amlc@leeds.ac.uk

“Mindfulness?
What’s that then?”

It’s simply learning to being
aware in the present moment.

“So, Annie! £250 quids worth of course for Free AND Cash!

Why are you doing this?!”

“Because research and my experiences suggest learning mindfulness can help singers as performers, learners, teachers and deal with career stress and life’s anxieties and I want to research it to make sure.”

Just a few of the things (as well as being a bit richer at the end) that a mindfulness course could help you with as a singer....

Better control of **performance nerves** (Hribar, 2012, research from the **Guildhall School of Music and Drama** where they run this course for musicians)

Better **immunity** to colds and flu (Davidson et al., 2007)

More effective **learning** in singing lessons (Diaz, 2011)

Find your **‘off switch’** at night (Ong et al, 2012)

And it will be fun too and probably very relaxing!

Annie’s Big PhD Research Project

Ethics Approval Reference: PVAR 15-008

Appendix AA - MfS Study: Invitation Email (Experimental)

Free Mindfulness for Singers Course. AND £20 to cover time and travel!

Learn to be more aware and change your focus of attention at will in the present moment for a variety of singing, education and life changing benefits.

Calling all singers currently having singing lessons at the University (10 places only)

PhD research: Anne-Marie Czajkowski (reply to my email to sign up - mc11amlc@leeds.ac.uk)

Hi everyone,

I'm going to be giving a free Mindfulness for Singers course for Uni singers starting in January. Normally this course would cost you about £250 but it, and the course materials, are free to you in exchange for your time to do the course, fill out a questionnaire, do a homework diary and have 2 short interviews. You'll also get £20 as a thank you for participating. Join music performance students at the Guildhall who do a Mindfulness for Performing Arts course where research has found that it helped controlling performance anxiety and stress.

However, other Mindfulness research indicates that there are many other possible benefits for singers in taking a course. Here are a few.

1. Enhanced immunity – avoid those colds and flu!
2. Moment by moment attention skills learnt on the course will help you concentrate better in lectures, singing lessons, singing practice and interpersonal relationships.
3. Deepen your awareness of your breathing/posture and physical sensations of singing. Learn technique more intensely and quickly.
4. Deal with criticism better.
5. Deal with performance nerves and anxiety
6. Encourage a 'flow' experience and enable more creativity when performing.
7. Sleeping problems? Relaxation problems? Learn to turn off your brain at night.
8. Are you a worrier? Choose the present and put those worries in the proper place.
9. Stage awareness - narrow or wide present moment focus? It's your choice with mindfulness.
10. Enhance physical awareness for better acting and performance skills.

Sign up now by contacting me on this email (mc11amlc@leeds.ac.uk) to get a place and be part in unique, exciting research especially for singers.

Thanks for your time and attention.
Anne-Marie Czajkowski (Annie)

Appendix AB - MfS Study: Invitation Email (Control)

CALLING ALL SINGERS.

A couple of weeks ago I sent out a call for people interested in participating in a research project investigating the effects of Mindfulness on Singers.

I'm also looking for singers who do not necessarily want to take part in the larger study.

Do you have singing lessons at the Uni and are not currently pursuing a mindfulness course?

Would you like £4 for filling in 2 anonymous surveys online?

Then contact me on the email below please. (10 places only)

Mc11amlc@leeds.ac.uk

Annie's Big PhD Project.

Appendix AC - MfS Study: Yoga Consent Form

The effects of a targeted mindfulness course on student singers:
A longitudinal study

Informed Consent Agreement

I understand that I about to embark on a set of gentle mindful movements led by Anne-Marie Czajkowski.

I have been advised to seek confirmation from my doctor or other health professional regarding the appropriateness of this course of movements for myself, or I have decided that it is not necessary to seek medical confirmation.

I understand that it is up to me to take responsibility for not going beyond my physical limits, either in the class or at home. If for any reason I think it unwise to engage in any particular movements, then I am under no obligation to do so. I will not hold anyone from the University of Leeds liable for any injury incurred from these movements.

Date.....

Sign Name.....

Print Name.....

Ethics Approval Reference: PVAR 15-008

Appendix AD - MfS Study: Registration Form

The effects of a targeted mindfulness course on student singers:
A longitudinal study.

Student Registration Form

Name.....

Age.....Gender.....

Contact number.....

Uni Email address.....

Singing teacher's name.....

Singing teacher's contact details (if not University of Leeds based)

.....

Consent for interview recording and immediate anonymisation? Y / N

FREE TIMES in Semester 2

Monday.....

Tuesday.....

Wednesday.....

Thursday.....

Friday.....

Appendix AE - MfS Study: Teacher Recruitment Letter

*"Parents and teachers tell kids 100 times a day to pay attention,
but we never teach them how"*

Dr Philippe Goldin, Stanford University, New York Times, 16 June 2007

Dear (Singing Teacher)

My name is Annie and I'm doing my PhD in Applied Psychology of Music at Leeds University.

The reason I'm contacting you is because one or more of your singing students have agreed to participate in my research project. They will be learning some attention training techniques starting in Semester 2. This is the same type of course that students at the Guildhall have been enjoying called "Mindfulness for Performing Arts Students". There it has been shown to help with performance stress and anxiety. My own Masters on this subject two years ago showed significant improvements in a variety of singing areas such as learning technique, changing the relationship between the teacher and pupil and positive singing practice behaviour changes and the research has recently been accepted for publication in the British Journal of Music Education.

I would be extremely grateful if you would agree to be part of a new project which investigates the effects discovered in the Masters to more depth. The project would involve 2 short 15-20 minute interviews, one immediately after the course end and one 3 months later to see if there are any longitudinal effects. I am, of course, happy to pay you pro-rata for this and to arrange things to your convenience as to place and time.

To participate in my research, all you need to do is what you always do in lessons and then as the new Semester starts, to reflect on whether any of your student's behaviour or learning are changing or become different in any way that you weren't expecting. You won't personally know which, if any, of your students have elected to take the course and it doesn't matter if you see nothing as that result is as valid as seeing changes.

All interviews are confidential and neither you, nor the students, would be referred to by name in any document. If you would like more information about what the students will be learning and how it will be taught, please don't hesitate to contact me on mc11amlc@leeds.ac.uk

I really hope that you will agree to be a part of this project as your input would be invaluable. I will contact you by email in the next few days as a follow up to this letter to see if you are willing to participate.

Many thanks for your support

Anne-Marie Czajkowski 0113 286 2513

Appendix AF - MfS Study: Teacher Reminder Email

Dear (singing teacher)

I sent you a letter a couple of days ago about my research called Mindfulness for Singers and I wondered if you'd had time to read it. I do hope you'll be able to take part as your input will be very useful indeed.

Please respond to this email either way because I'd like to know that you've had chance to read it.

I'm very happy to pop into the university, email you more details or phone and have a chat if you wish to know more before agreeing to take part.

Yours very thankfully

Annie (Anne-Marie Czajkowski)

Ethics Approval Reference: PVAR 15-008

Appendix AG - MfS Study: Teacher Registration Form

The effects of a targeted mindfulness course on student singers:
A longitudinal study.

Teacher Registration Form

Name.....

Gender.....

Contact number.....

Email contact.....

Consent for interview recording and immediate
anonymisation?.....

Date:

Appendix AH - MfS Study: Further information on topics covered in the MfS Course

Week 1

Definition of Mindfulness: Mindfulness is a term that is used by a variety of people in a variety of ways. The operational definition used for the MfS Course is that used for most 8-week MBSR and MBCT courses, that “Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 1994, p.4). Each part of this statement is explored, especially the term “nonjudgmentally” so that participants have a clear idea about being self-compassionate during the learning, practicing, and experiencing process.

Autopilot: Living on autopilot is useful in some cases and not useful in others. It usually develops during childhood to help the mind to deal with excessive cognitive input combined with the need to do things quickly. It is useful for doing repetitive mundane tasks leaving the mind space to think about other things. It is not useful when learning a skill such as singing. Participants were encouraged to suggest their own experiences of autopilot.

Habit Awareness: Participants were asked to be aware of one task a day, such as brushing their hair or having a shower. They were encouraged to sensually experience the task in as many ways that their senses would allow, such as being aware of each muscle movement when brushing or watching the steam curl as the shower came up to heat.

Week 2

Stress: Different types of stress experienced by music students and music professionals, such as physical, mental, emotional and job related stress were discussed in the group. Stress is possibly a modern day evolution of the flight/fight syndrome so helpful for early man warning of life threatening situations but now exhibiting itself in, generally, non-threatening circumstances. Body/mind feedback in stress and non-stress circumstances was discussed and, as an illustration, the experiment investigating the effect of head movements on persuasion by Wells & Petty (1980) was introduced to the group.

Expectation and reality: People expect to become relaxed and this is often seen as the goal of doing mindfulness exercises. However, it was pointed out that the only goal is to develop present moment non-judgmental awareness. Relaxation might be an extra effect.

Being and Doing Mode: We are human beings, not human doings. The concept of “being” compared to “doing” was discussed. Someone in

the “being” mode is aware in the present moment of doing something or choosing not to. Someone in the “doing” mode is often on autopilot and often thinks they must always be doing something or they are not achieving.

Mindfulness and Illness: Research correlating mindfulness with the development of a stronger immune system (Davidson et al., 2003) and new research positively correlating mindfulness with the prevention of ARI (acute respiratory infections) (Barrett et al., 2012) were discussed in class. Singers can lose work through contracting colds or flu.

Week 3

Performance Nerves: Experience of performance anxiety was used to introduce the concept of Primary and Secondary suffering (see below). A short research-based talk was delivered using examples such as the Yerkes Dodson Law (Yerkes & Dodson, 1908) explaining the necessity of a certain level of nerves for good performance and it’s role in our successful evolution. Information from *The Psychology of Music Performance Anxiety* (Kenny, 2011) was introduced as a stimulus for discussion on participants’ own MPA and the strategies they used to cope. Yoga and breathing exercises (both explored in the class), the concept of mindful acceptance of the situation and its accompanying physical and mental symptoms, and the effectiveness of various other strategies (e.g., imagery, visualisation, and comforting habits) were discussed.

Primary and Secondary suffering: Primary suffering occurs when an unavoidable situation, such as an audition or doing a performance, creates physical responses. The mind, unable to tell if the situation is life threatening or not, tells the body to prepare for fight or flight. Secondary suffering is a compounded reaction created by mental resistance to the progenitor of the primary suffering. Usually occurring when the mind interacts from a past or future perspective, the response is additional to primary suffering. It can cause a variety of issues such as losing perspective, unnecessary worry, ruminative thoughts or symptoms of anxiety or depression. Primary suffering may have to be accepted but secondary suffering can be alleviated by mindfulness.

An example would be getting marks back from a piece of work handed in three weeks earlier. One might feel nervous, twitchy or even nauseous as the mind perceives an attack even though getting marks back is rarely life threatening. This is primary suffering. Thoughts and emotions often accompany these physical sensations, such as worrying about not having worked or researched hard enough in the past or fear of what a bad mark might mean for the future even though one does not know the result as yet. This is secondary suffering. Sometimes a feedback loop occurs increasing the physical, emotional and mental symptoms. If one also had a lecture that morning, the secondary suffering might be so pronounced that one might not be listening to the

lecturer and jeopardise future work. This secondary mental suffering might make the sufferer, who can at this point do nothing about the mark, experience unnecessary suffering. Mindfulness at this point can help bring the sufferer into the present moment in the lecture thus aiding learning, taking the mind off the impending mark and relieving the mental and physical sensations until the moment of receipt of the mark.

Awareness of the pleasant, unpleasant, and neutral: Participants were asked to pick a neutral time and place each day and come into present moment awareness to notice whether they felt pleasant, unpleasant or neutral at that time.

Week 4

Being judgmental: The introduction example, “John was on his way to school, he was worried about the maths lesson, he was not sure if he could control the class again today, he’d not taught very much since becoming headmaster” was used to illustrate the suggestion that we tend to see the world as we are, not as it is. Participants were encouraged to offer their experiences.

Perception: ABC Model of Emotions: Very basic introduction to Albert Ellis' development of REBT/CBT (David, 2014). The way we interpret the world makes a difference to how we react.

A: This is the situation itself. The stimuli.

B: Our interpretation or personal subtext (which we often take as fact).

C: Our reaction (emotional/mental/body sensation response/impulsion to act)

Being more mindful and in the moment can help interrupt point A from leading inexorably into point B. This can then affect our response to the experience, point C, changing our view point from the pre-expected to the raw experience or, to use mindful terminology, from reaction to reflection on the unpleasant/pleasant or neutral stimuli.

This was then connected with more recent research on Event Related Potentials using EEG scanning by Dr Jay Gunkelman, EEG Specialist and Chief Science Officer at Brain Science International, California (Brian Milstead, 2009).

Dealing with criticism: A discussion of when criticism (from within and without) and being judgmental is constructive and helpful to learning and when it is not. Being self-aware, critical and judgmental in one respect when singing can aid us to learn and change in the moment. Berating ourselves and thinking ourselves worthless for doing something wrong

can be damaging to learning. The discussion was extended to include criticism from others in a singing context.

Cataloguing: A discussion about using mindful awareness to avoid “cataloguing” behaviour, for example, hearing the start of a sentence and assuming (by drawing the answer from your mind’s catalogue) that you already know the end of the sentence. Another example is in dealing with criticism in lessons so that one is hearing what is actually said rather than letting your internal monologue drown out the reality and embellish on it.

Week 6

Orientation and choices: A recapitulation on how being in the moment can re-orientate us to experiences in life and give us choices on how to react. Mindfulness gives us choices when difficulties in life arise.

- Something primary is there in the moment (say a performance or performance nerves or a life event).
- Accept that it is happening.
- Take a moment....
- Assess the body.
- Breathe mindfully
- Breathe into the body sensations
- Then choose to act ... or not.
- In all things be kind to yourself!

Pre-performance nerves: An imaginary exercise was run to allow participants to feel some imaginary pre-performance anxiety. “Imagine Jane Doe from the International Artists Agency has rung you up to offer you an audition next week because she’s heard you are a superb singer. How do you feel?” The group had a discussion about the experience.

Performing nerves occur when the mind tells the body it is under attack and it prepares itself to run or hide. Performing is rarely a life or death situation but our bodies act as though it is and can impair performance or enhance it.

A recapitulation of the Primary and Secondary suffering teaching was offered. It was suggested that physical sensations were normal and natural for nervous people (Primary suffering) and that some nerves were important to perform in an exciting way. However, negative thoughts that could accompany the physical sensations were not necessarily helpful (Secondary suffering) and that mindfulness breathing techniques could help bring back reality to the situation and sometime reduce physical symptoms.

Participants were then told they were to prepare an unaccompanied song to perform for the group the next week. Another discussion about performance nerves ensued.

Present moment performance creativity: Using mindfulness on stage could have effects on performance, such as time distortion or creativity. Participants were encouraged to try practicing to be mindful in performance to find out what the effects were for them.

Weeks 7 and 8 involved no new teaching elements.

Appendix AI - MfS Study: Week 1 Visual Timetable

MINDFULNESS FOR SINGERS 1

Introduction

What is Mindfulness?

The Course (handouts)

Autopilot

- Exercise 1 – Breathing Awareness
- Exercise 2 – Breathing Journey
- Exercise 3 – 3 minute breathing space (Handout)

Habits

Exercise 4 – Mindful Movement
(Handout)

Journal

Appendix AJ - MfS Study: MfS Course and Practice Overview

MINDFULNESS FOR SINGERS

MINDFULNESS TO.....

HELP WITH LEARNING

- | | |
|-------------------|--|
| Singing lesson | (learning technique, creativity, dealing with teacher and lesson pressure, self worry, inadequacy, dealing with criticism) |
| Singing technique | (practical body sensation understanding – self awareness of physical sensations) |
| Practice | (practicing singing technique, quality time management, creativity, words learning, memory of what teacher said, frustration, dealing with self criticism) |

HELP WITH PERFORMING

- | | |
|----------------|--|
| Anxiety/Nerves | (not running from them and having strategy to deal with them.) |
|----------------|--|

Primary and secondary suffering.

- List of primary suffering (tummy queasy/headache/sore throat/shakes etc)
 List of secondary suffering (feelings of not worthy, emotion of fear etc)

- | | |
|----------|---|
| On stage | (being aware in present moment to be creative)
(being aware of performers/conductor/props/audience)
(performing on stage – entry to flow state) |
|----------|---|

HELP WITH CAREER STRESS

- | | |
|--------------------|---|
| People | (networking/getting on with others/dealing with conductors and concert promoters and fixers and agents) |
| Stress and Anxiety | (audition nerves, job related stress, paying bills)
(relaxation from intensity of job stresses)
(help with sleep issues)
(better immunity to colds and flu)
(dealing with critics comments, criticism, other singers) |

MINDFULNESS IS.....

Moment by moment awareness that is not judgmental (in the emotional sense) but is responsible.

TWO TYPES OF AWARENESS:

- Focus* - Narrow awareness focused on one thing (concentration, attention)
Breadth - Broader/wider awareness (taking it all in as it's happening)

MINDFULNESS COURSE PRACTICE

KEY PRINCIPLES

Learn to live in the present moment and breathe into experiences.

Learn to respond not react to life circumstances.

Daily 10 min practice at the best time for you. Book a time to be with yourself!

COURSE PRACTICE WITH MP3

All the MP3 tracks are freely available from

<http://www.mindfulnessforsingers.co.uk/mp3-practice-library.html>

Week 1

Regularly: **1–3 minute breathing space** at any stressful time.

Mindful Movement (standing) practice before singing practice OR lesson OR once a day:

Habit Breaking: Mindfulness in chosen daily life routine (teeth brushing/making tea for eg).

Week 2

Regularly: 1–3 minute breathing space at any stressful time.

Body Scan (lying or sitting) before singing practice OR lesson OR once a day

Habit Breaking: Mindfulness in daily life (choose a different activity)

Week 3

Regularly: 1–3 minute breathing space at any stressful time.

Mindful Breathing (sitting or standing) before singing practice OR lesson OR once a day

Mindful of one **pleasant** thing every day. Enjoy it – note it down!

MINDFULNESS COURSE CONTENTS CONT.

KEY PRINCIPLES

Learn to live in the present moment and breathe into experiences.

Learn to respond not react to life circumstances.

Daily 10 min practice at the best time for you. Book a time to be with yourself!

COURSE PRACTICE WITH MP3

Available from www.elfsinger.co.uk/MfS

Week 4

Regularly: 1–3 minute breathing space at any stressful time.

Mindful Movement before singing practice OR lesson OR once a day

Mindful of **one meal course** every day. Savour each mouthful.

Week 5

Regularly: 1–3 minute breathing space at any stressful time.

Body Scan before singing practice OR lesson OR once a day

Mindful of **one journey** each day. Be aware of everything around you and the way walking feels.

Week 6&7

Regularly: 1–3 minute breathing space at any stressful time.

Your favourite mindful practice before singing practice OR lesson OR once a day

Listen to **one favourite music** track each day completely attentively. Soak in the music.

Week 8 What will you do next?

Appendix AK - MfS Study: 3-Minute Breathing Space Hand-out

MINDFULNESS FOR SINGERS

3 MINUTE BREATHING SPACE

3 Stages of about a minute each

NOW – BREATHE – EXPAND

1. Becoming aware (NOW)

Good posture. Close eyes (if poss)

Bring awareness to your inner experience.

Thoughts? (They're just mental events and will change in time)

Feelings? (Pleasant, unpleasant, accept them all, they are as they are right now)

Body Sensations? (quickly scan the body for tension and stress – just be aware)

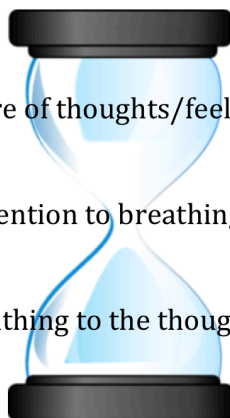
2. Abdominal Breathing (BREATH)

Narrow the spotlight of your attention to the feeling of the abdominals moving whilst breathing. This breath is your anchor. The mind may wander – gently bring it back over and over to the feeling of the breath.

3. Expand attention (EXPAND)

Expand the awareness of the breath and 'breath into' the *thoughts, feelings* and *body sensations* you found above. Explore the sensations, be curious, befriend them.

THE HOUR GLASS



Wide - Become aware of thoughts/feelings/body sensations

Narrow - Focus attention to breathing movement in belly

Wide - Expand the breathing to the thoughts/feelings/sensations.

Appendix AL - MfS Study: Mindful Movement Hand-out

MINDFULNESS FOR SINGERS

MINDFUL MOVEMENT

PRACTICE BEFORE EACH SINGING LESSON OR SINGING PRACTICE OR ONCE A DAY.

Download and use the Mindful Movement MP3
(available at <http://www.mindfulnessforsingers.co.uk/mindful-movement.mp3>)

5 MAIN POSES (YOGA)

Usefulness for singing

Mountain Pose	excellent for posture and abdominal breath awareness.
Raising arms	opens ribcage, breath awareness
Bending at waist	breathing into the back awareness – energises abdominal/diaphragm muscles
Shoulder rolls	tension out of shoulders – awareness of shoulder/upper arm tension
Neck rolls	tension out of neck, back of neck lengthening awareness.

Mindful Movement Instructions

1. Standing in 'Mountain Pose' – feet grounded/head in clouds
2. Slowly raising both arms above the head and stretch, hold, then down
3. Standing in 'Mountain Pose' (to feel the effects of the stretch)
4. Slowly raising arms again – repeat and be aware of the breath now
5. Raise arms up and tilt waist to right (like a bending tree) and hold
6. Tilt waist to left and hold
7. Lower arms back to sides.
8. Standing in 'Mountain Pose' (to feel the effects of this stretch)
9. Shoulder Rolls (gentle/slow/mindful)
10. Shoulder Rolls – reverse direction – be aware of breathing.
11. Mountain Pose
12. Forward bend slowly at the waist, hanging arms, relaxed neck, soft knees, breath awareness in back.
13. Slow return back to Mountain Pose
14. Chin lower to chest, roll left ear to left shoulder and to the right. Tune to sensations in head and neck.

Appendix AM - MfS Study: Week 2 Visual Timetable

MINDFULNESS FOR SINGERS 2

A few moments of mindfulness.

Questions and Habits discussion

Stress (Musicians)

Stress and Evolution

Somaesthetics – Body/Mind Feedback

- Exercise 1 – Body Scan (Handout)

Expectation and Reality

Doing and Being Mode

- Exercise 2 – Mindful Breathing

Mindfulness for Health

Journal

Appendix AN - MfS Study: Body Scan Hand-out

MINDFULNESS FOR SINGERS

BODY SCAN FOR SINGERS

PRACTICE BEFORE EACH SINGING LESSON OR SINGING PRACTICE OR ONCE A DAY.

(Download and use the Body Scan MP3 from <http://www.mindfulnessforsingers.co.uk/mp3-practice-library.html>)

INSTRUCTIONS

Usually done lying down, this can be done sitting or standing. Just modify to suit.

Lying down

- On a bed or mat. Use a blanket and pillow for comfort/warmth.
- Relax arms by side or resting on belly
- Legs down flat or bent at knees if back problems
- Closed eyes or open as you prefer

Sitting

- Sit upright, back away from chair in an 'attentive' posture
- Hands on knees relaxed
- Feet flat on floor
- Eyes open or closed as desired

Standing

- Standing in 'mountain pose' – Crown of head to sky and feet grounded.
- Hands and arms relaxed by side
- Feet hips width for stability on floor
- Eyes open or closed as desired

Body scan

1. Taking the mind in the present moment, curiously, from body part to body part being aware of external and internal sensations.
2. 'Breathing into' any tensions or stresses found.
3. When your mind wanders (it always does – but that's what we're training) bring it gently back to the part of the body you wish to be aware of.

Follow the MP3 because this is a tricky one to do on your own until you've had some practice. It's been specifically modified for singing.

Good for Singers....

Good for singers because it helps you be more aware of the physical sensations of singing. This can help with the comparison of old to new singing technique or developing more effective practice. Also good for helping you be more physically aware in acting and performance of songs.

Appendix AO - MfS Study: Week 3 Visual Timetable

MINDFULNESS FOR SINGERS 3

3 Minute Breathing Space

Questions/Discussion

- Exercise 1 - Mindful Yoga

Performance Nerves

Primary and Secondary Suffering

- Exercise 2 and 3 – Mindful Breathing
Counting and Journey versions
(Handout)

Pleasant/Unpleasant/Neutral? –
Curiosity!

Practice Tips

Journal

Appendix AP - MfS Study: Mindful Breathing Hand-out

MINDFULNESS FOR SINGERS

MINDFUL BREATHING PRACTICE – 2 VERSIONS

PRACTICE BEFORE EACH SINGING LESSON OR SINGING PRACTICE OR ONCE A DAY.

Download and use the Mindful Breathing Counting MP3

And/Or download and use the Mindful Breathing Journey MP3

(available at <http://www.mindfulnessforsingers.co.uk/mp3-practice-library.html>)

GENERAL INSTRUCTIONS FOR BOTH

This is usually done sitting (but can be done lying or standing, if you wish).

They are both 10 minutes long. 5 minutes with instruction and then 5 minutes to practice on your own with a farewell so you don't have to watch the time.

Again, do this with one of the MP3's because it's so easy to daydream!

Sitting

- Sit upright, back away from chair in an 'attentive' posture
- Hands on knees relaxed
- Feet flat on floor
- Eyes open or closed as desired

This is intensely focused and concentrative attention training.

There is plenty of time in this exercise to practice bringing your mind back to the focus, the sensations of your breathing, over and over again.

You're learning to be aware of when the mind wanders and to gently and non-judgmentally bring your minds present moment awareness back to your breath.

INSTRUCTIONS FOR MINDFUL BREATHING COUNTING

Follow the relevant MP3.

Count breaths up to a count of 10. Drop the count in at the end of each breath. Don't worry if you get lost or go over 10 or your mind wanders, just restart again at 1.

The focus of the counting helps some people but annoys others.

MINDFULNESS FOR SINGERS

MINDFUL BREATHING PRACTICE – 2 VERSIONS - CONTINUED

INSTRUCTIONS FOR MINDFUL BREATHING JOURNEY

Follow the relevant MP3

Focus on a different part of the breathing mechanism with each complete in and out breath.

Don't feel you have to change your breathing. Just become aware.

Be aware of the different sensations of breathing at each point in the breathing cycle. Be aware of air temperature changes, depth of breathing changes, any speed changes, muscular changes.

Enjoy this time to relax and become attentive to your breathing.

1. Nose
 2. Throat
 3. Lungs/Intercostal Muscles
 4. Diaphragm
 5. Abdominals
 6. Lower back
 7. Middle back
 8. Upper back/shoulders
 9. Neck lengthening
 10. Nasal cavity
- And back to Nose again. Repeat.

Good for Singers.....

Good for singers because if you're really wanting to control performance nerves, you'll need some non-stressful practice before taking on a more

Appendix AQ - MfS Study: Week 4 Visual Timetable

MINDFULNESS FOR SINGERS 4

3 Mins to settle - Questions/Discussion

Perception and judgment

- Exercise 1 – Mindful Eating

Perception and criticism

- Exercise 2 – Listening mindfully

Sound and Thoughts

- Exercise 3 – Sounds and Thoughts

Weekly Exercise

Journal!

Appendix AR - MfS Study: Sounds and Thoughts/Mindful Listening

Hand-out

MINDFULNESS FOR SINGERS

SOUNDS AND THOUGHTS

PRACTICE SOUNDS AND THOUGHTS BEFORE EACH SINGING LESSON OR SINGING PRACTICE OR ONCE A DAY FOR 10 MINUTES THIS WEEK PLEASE.

MINDFUL LISTENING

Pick a piece of music every day – put aside some time to dedicate to listening to it without interruptions – for example....

- Something from your music collection or from the internet
- A piece played by a professor in a lecture
- A live performance in a class.

Start listening to the music.....

1. Take a quick body scan. Be aware of any current physical sensations, emotions or feelings.
2. Then, focus on your favourite part of your breathing mechanism (nose, abdominals or something)
3. Then, take the breath into the music.
4. Be aware of any physical, emotional or feeling changes as a result of the music.

Open your ears and change focus regularly at will. Follow the rhythm, listen to parts, listen to the acoustics, listen to the colours of the music – aural awareness!

Be aware and stay with each note of the music in the present and mindfully.

Notice....

Do your emotions change?

Does your breathing change?

If your body wants to move, do you choose to let it or do you hold it back?

And so on....

Pro singers often have to perform music they'd not choose to sing and in some cases, actually dislike.

So why not try this exercise with some music you don't like.

What effect does 'being mindful' have on music you don't like?!

TRY LISTENING TO OTHER PEOPLE IN THE SAME WAY.

Follow the points above – What do you notice??

Appendix AS - MfS Study: Week 5 Visual Timetable

MINDFULNESS FOR SINGERS 5

3 minute breathing practice

Questions/Discussion

Mindful Walking – Stage Awareness

Exercise 1 – Mindful Indoor Walking

Discussion

Present Moment Walking

Exercise 2 – Mindful Outdoor Walk

Discussion

Journal/Handout

Appendix AT - MfS Study: Mindful Walking Hand-out

MINDFULNESS FOR SINGERS

Week 5

WEEKLY PRACTICE

PRACTICE BODY SCAN OR MINDFUL MOVEMENT BEFORE EACH SINGING LESSON OR SINGING PRACTICE OR ONCE A DAY FOR 10 MINUTES THIS WEEK PLEASE.

MINDFUL WALKING

Take one small journey every day (walking is best) and be aware as you can be of your surroundings even if they're not traditionally considered very beautiful!

IMPORTANT: Turn off any entertainment that you usually have on the journey.

IMPORTANT: Do this on a solo journey (it's hard to stay in the present when talking).

Change your focus of attention regularly but stay in the present. Maybe go from close attention of something to a wide awareness and back for fun.

You could be aware of:

Yourself – all the many ways walking affects your body, arms swinging, tension in the neck, breathing pattern, temperature in different parts of the body. Things you touch (stair rails etc)

The environment – smells, sights, sounds, changing perspectives as you walk, feeling of the weather, architecture, cloud shapes.

Other people – Observe how they walk or dress, how aware they seem, how they interact with others or their environment.

Have some fun – Maybe walk behind someone and copy their posture and walk for a few steps. Change how you walk slightly. Take a new route somewhere.

Appendix AU - MfS Study: Week 6 Visual Timetable

MINDFULNESS FOR SINGERS 6

3-Minute breathing practice
Questions/Discussion

Orientation

Music Performance Anxiety

Discussion

Life's Problems

- Exercise 1 – Exploring Difficulties

Preparation for Week 7

- Exercise 2 – Body Scan

Being Creative on Stage

Journal/Handout

Appendix AV - MfS Study: Exploring Difficulties and Performance

Preparation

MINDFULNESS FOR SINGERS

Week 6

FORMAL PRACTICES

PRACTICE THE EXPLORING THE DIFFICULTIES MP3.

Practice for 10 minutes every day with a mind to helping deal with performance nerves (or your own life's difficulties if you like) this week.

INFORMAL PRACTICES

Keep up your informal practices and try to do at least one a day.

- Mindful Walking
- Mindful Listening
- Mindful Eating
- Be aware of some repetitive task (showering, cleaning etc)
- Be aware of tasks being pleasant, unpleasant or neutral: How does this affect your body?

Be playful! Be curious! Be inquisitive! Be aware.

PERFORMANCE PREPARATION

Prepare a 5-ish minute song to sing unaccompanied next week.
Explore nerves and get creative with performance!

- Nerves: Are they physical/mental or both?
- Accept them
- Name them and place them
- Breathing into the physical sensations
- Bring back focus to breathing

- Creativity: Be mindful in singing practice
- Find 4-5 ways of singing your song
- Be creative, playful, have fun!

Appendix AW - MfS Study: Week 7 Visual Timetable**MINDFULNESS FOR SINGERS 7****Questions/Discussion**

- Exercise 1 – Mindful Breathing
- Exercise 2 – Body Scan (sit)
- Exercise 3 – Mindful Movement

Instructions:

Pre-performance

During Performance

During the criticism

- Exercise 3 - Performances and Criticisms from the audience

Discussion**Journal and Handout**

Appendix AX - MfS Study: Final Hand-out**MINDFULNESS FOR SINGERS****Week 7****FORMAL PRACTICES**

TRY OUT ALL THE DIFFERENT PRACTICES YOU'VE LEARNT BUT PLEASE COMMIT TO DO SOME EACH DAY BEFORE SINGING ACTIVITIES.

Please commit to practice before singing activities this week so that you'll have positive or negative feedback for the interview. Even 1-minute practice is better than non!!

INFORMAL PRACTICES

Keep up your informal practices and try to do at least one a day.

- Mindful Walking
- Mindful Listening
- Mindful Eating
- Be aware of some repetitive task (showering, cleaning etc)
- Be aware of tasks being pleasant, unpleasant or neutral: How does this affect your body?

Be playful! Be curious! Be inquisitive! Be aware.

INTERNET

YouTube is full of guided meditations so you don't have to just stick with the ones I've given you. Have a search and see what you can find for yourself. Here's some to start with:

<http://www.ilivethelifeilove.com/10-best-guided-meditations/>

<http://www.mindfulmuscle.com/5-top-guided-meditations/>

Anything by Jon Kabat-Zinn, Professor Mark Williams, Danny Penman or Mrs Mindfulness.

Appendix AY - MfS Study: Week 8 Visual Timetable

MINDFULNESS FOR SINGERS 8

Questions/Discussion

Wrapping it up

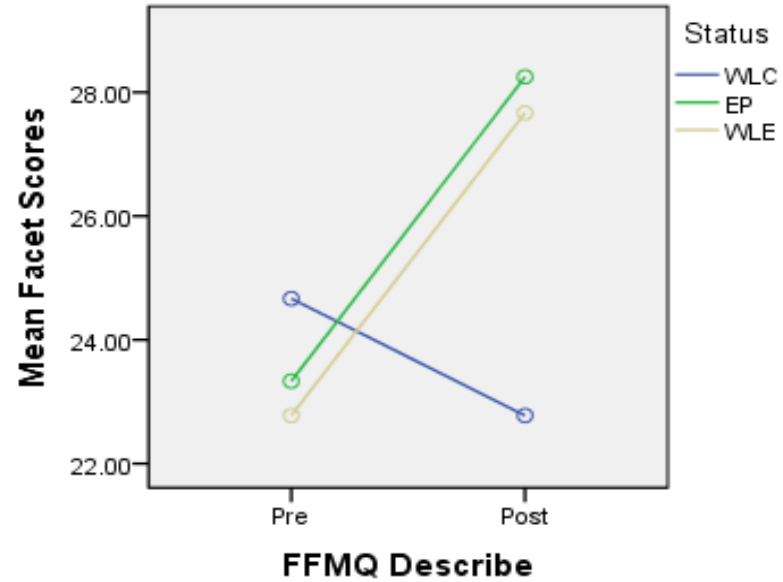
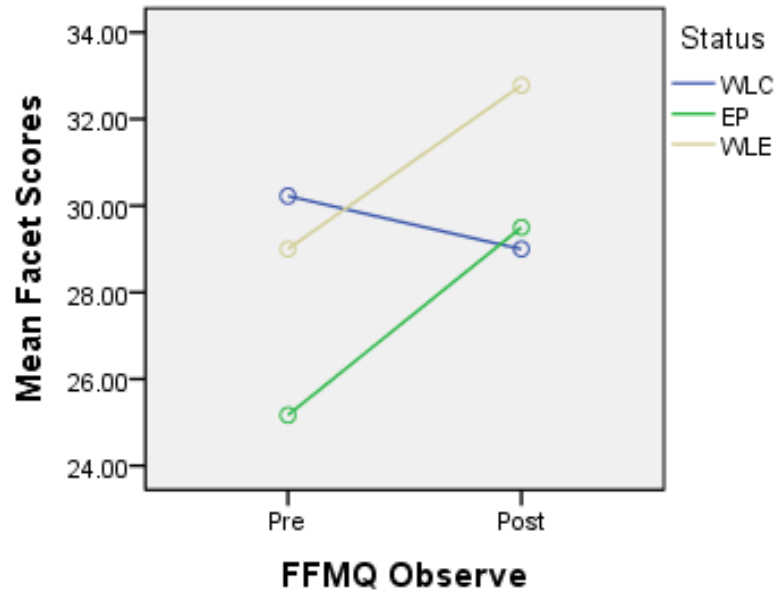
Daily Life Balance

- Exercise 1 – Body Scan

Questionnaires

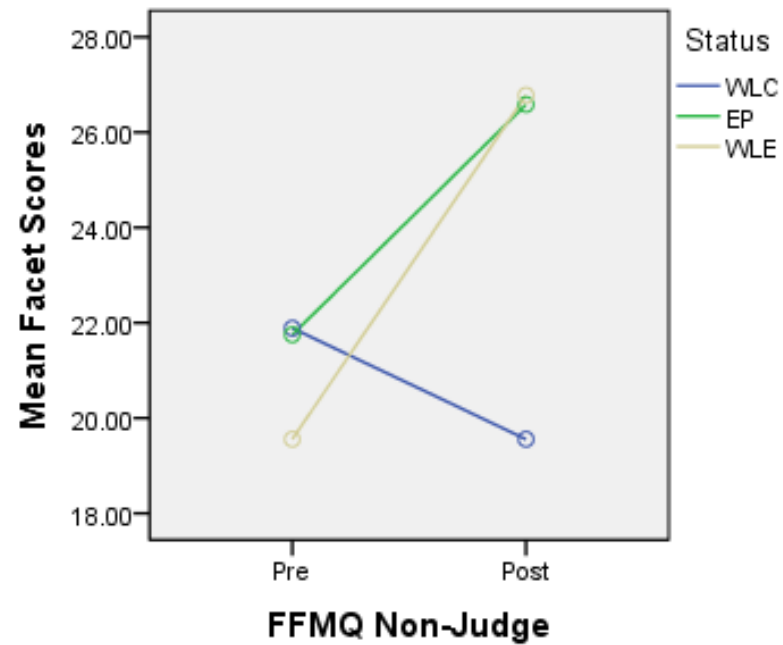
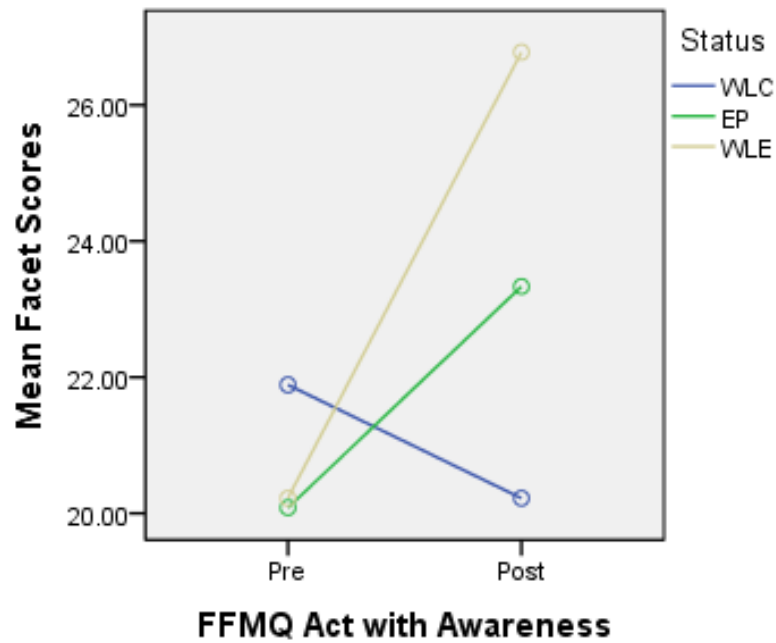
First Interview Booking

Appendix AZ – MfS Study – Changes between Conservatoire participants’ pre- and post-scores for the FFMQ and MfM using facet graphic plots.



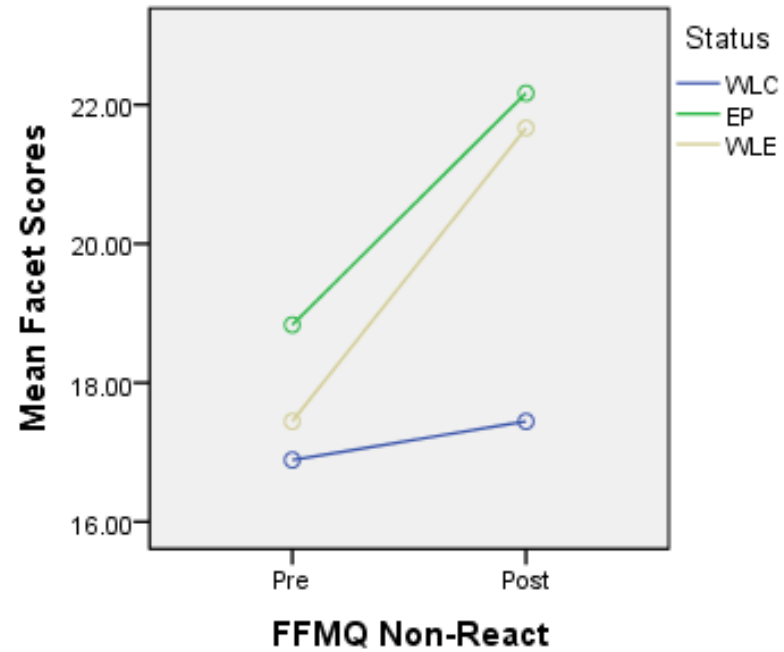
WLC = Wait-list controls
EP = Experimental participants
WLE = Wait-list experimental participants

MfS Study – Changes between Conservatoire participants' pre- and post-scores for the FFMQ and MfM using facet graphic plots.



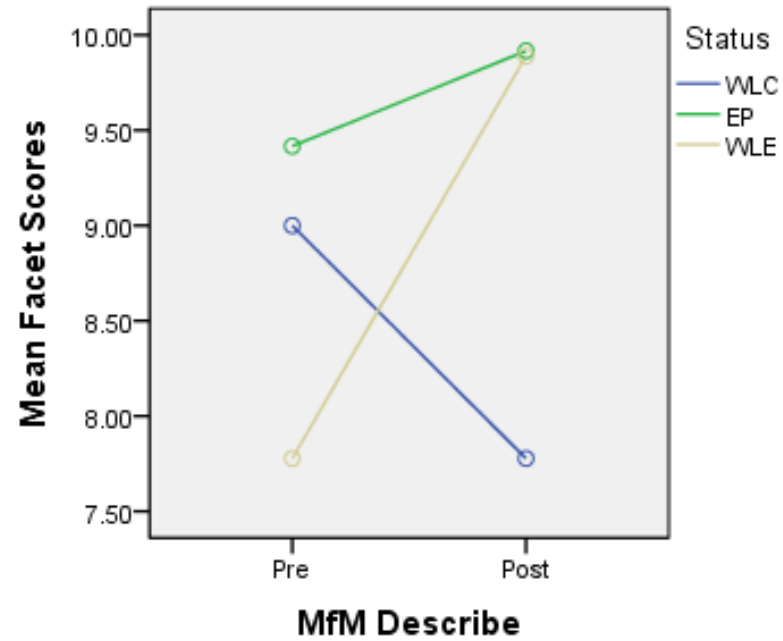
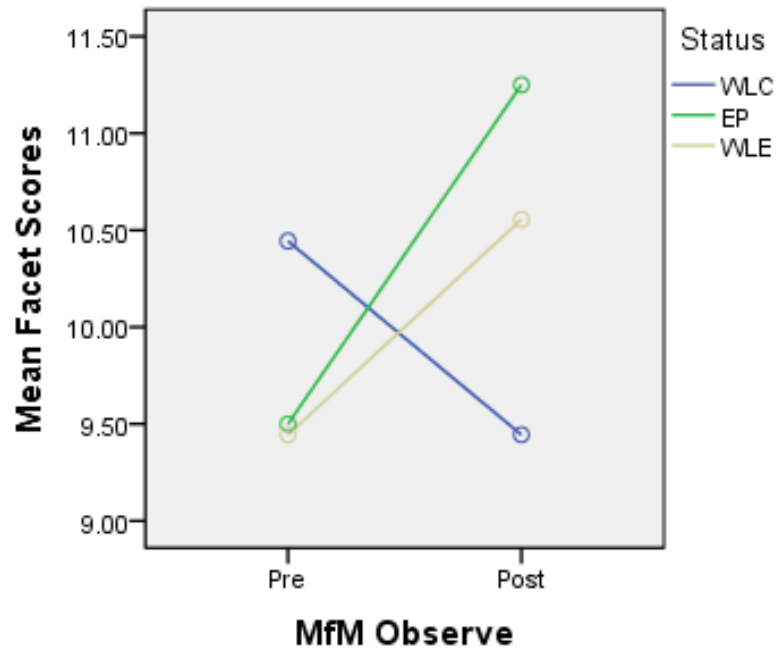
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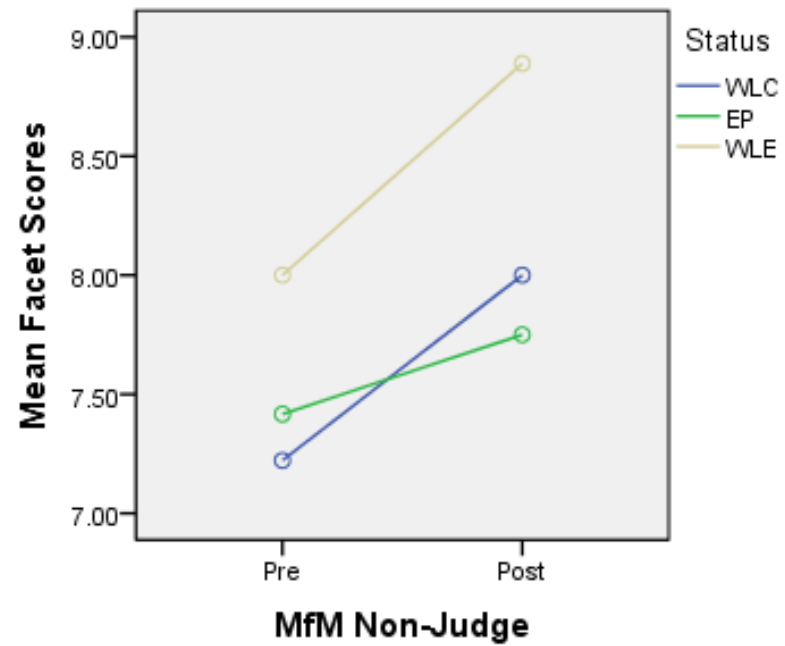
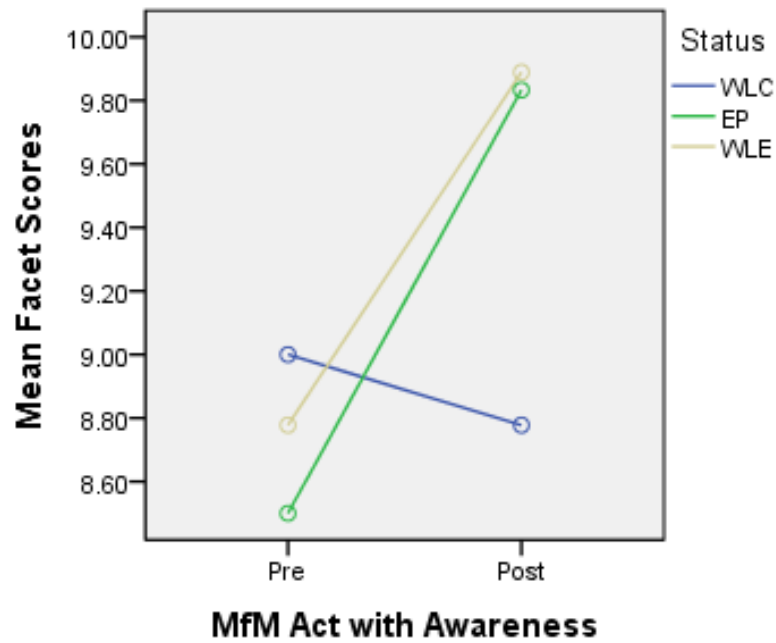
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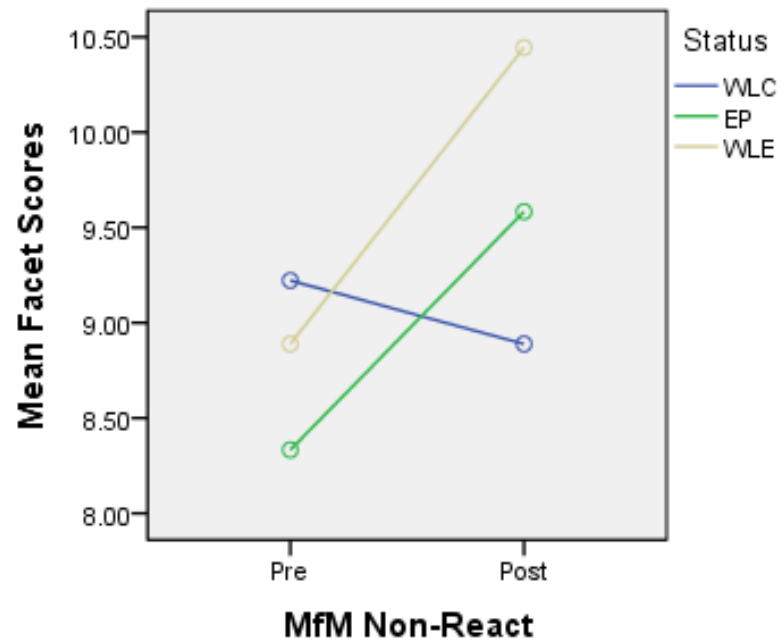
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EP = Experimental participants
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Appendix BA - Glossary of Singing Terms

Belting

Belting is a technique of contemporary singing based on chest voice vibration with strong pressed air support.

Dial-a-Vowel

This is an exercise where the student sings one pitch and slowly shapes the lips and tongue through the main Italian vowels. The exercise is designed so that students can concentrate the harmonics and overtones that accompany each vowel on each pitch in the vocalists range and modify the vocal principles carefully to produce an optimum tone and vowel quality on each note.

Vocal Principles

The “vocal principles” is the collective name for the parts of the body directly involved with singing, such as the jaw, tongue, pharynx, larynx etc.

Onset and offset

The way a singer starts and releases a note is called the onset and offset. In popular and jazz music, this is a key area for communication and emotion portrayal and there are many types of onsets and offsets that can be used. In classical music, the onset and offset are usually cleanly and carefully managed in order to maintain a consistent legato vocal tone.

Appendix BB - Higher Education Module Sample for the Mindfulness for Singers Course.

TITLE: Mindfulness for Singers/Musicians
 SCHOOL: Music
 LEVEL: UG and PG
 MODULE CREDITS: 10
 MIN/MAX CLASS SIZE: 2-10
 TEACHING PERIODS: Multiple
 TYPE OF MODULE: Discovery
 READING LIST: Required
 STAFF INVOLVEMENT: 100%
 OPTIONAL FOR PROGRAMMES: BA Hons in Music or equivalent.
 PRE-REQUISITES: English to GCSE standard

MODULE OBJECTIVE: The key feature of this module is the theoretical and practical teaching of mindfulness to musicians. The goal is for them to be able to understand the theoretical and empirical field of mindfulness research and practically apply mindfulness skills to their musical activities such as lessons, private practice, ensemble rehearsals, and performances in order to improve outcomes. They should also find a benefit in daily life and relationships with others.

LEARNING OUTCOMES: After completing this module you should be better able to:

- Locate, summarise and review existing primary source material about mindfulness research in peer-review journals
- Summarise the development of mindfulness from Buddhist roots to modern cognitive applications
- Describe the key exercises used to develop mindfulness
- Develop focused attention and concentration skills, present moment open monitoring skills, introspective personal reflection, communication skills, and self-compassion.
- Demonstrate a practical, insightful, and reflective understanding of the effects of doing mindfulness on themselves and others as musicians and in daily life

OUTLINE OF SYLLABUS: The lectures will aim to provide students with basic knowledge about mindfulness in its historical and research-based context whilst also providing them with the practical tools, exercises, and incentive to develop mindfulness in their activities as musicians and in daily life. The ten lessons will cover history and contextual research, practical experience of the key mindfulness practices, opportunities to give and receive personal feedback on development of mindfulness skills, a mindful performance workshop, and opportunities to develop communication and compassion based skills within a close group setting.

MODULE SUMMARY: This module seeks to introduce singing students to the core practices, theory, and experience of mindfulness. It aims to help singing students develop key cognitive, physical, and mental health and well being skills for their present and future lives as musicians, teachers, and performers.

SKILLS TAUGHT BY THE MODULE:

Analytical skills, communication skills, creative problem solving, flexibility, independent working. Cognitive skills, personal development, mindfulness.

TYPE OF DISCOVERY MODULE: Mind and body.

RATIONALE: Mindfulness is a key skill in personal development, through intensive, insightful mental and physical inquiry.

TEACHING

SESSIONS: 10 x 1 hour weekly contact hours of teaching, 90 hours private study = 100 hours total engagement.

INDEPENDENT LEARNING and PRIVATE STUDY DETAILS: Mindfulness exercises are provided on line for use by the students and they are expected to listen to them before attempting to replicate them for themselves. Towards the end of the course, they are to develop their own personal mindfulness program based on experience.

Private study is on going, formally applied before all singing activities and informally, participants are encouraged to develop mindfulness skills through out their entire waking experience. Realistically this is expected to be less. Students will also be required to locate, read, understand, and summarise key theoretical and empirical studies in the field of mindfulness research.

ASSESSMENT

Essay – 1500 words. Set in week 5 of the course. 80% of formal assessment.
Reflective log – 750-1000 words. Set in week 1 of the course. 20% of formal assessment.

FEEDBACK

Formative feedback is provided during each session (diary checking, taking questions).

RATIONALE FOR TEACHING AND LEARNING METHODS: Formal information presentation helps students to learn about the current field of mindfulness research and its contextual history, and facilitates their research endeavours into the field. It also helps in disseminating practical information about the mindfulness exercises.

Practical, first-hand experience of mindfulness exercises both within the sessions and in private study facilitates an intimate understanding of exercises used to develop mindfulness and helps develop transferrable focused attention, open monitoring, and self-compassion skills.

Insightful and reflective group feedback work helps develop personal reflection and communication by improving observation and description skills.

Independent working during private study gives the students chance to approach problems as musicians and in daily life using mindfulness to encourage, develop, and improve creative problem solving and mental flexibility.

RATIONALE FOR ASSESSMENT METHODS: The essay assignment provides students with an opportunity to analyse a field of personal interest within the mindfulness canon through a detailed and focused essay. Topics could include the effect of mindfulness in the arts, in business, in sports, or in the clinical field, or discussing the difficulty in defining mindfulness for research purposes.

The reflective log will give students the incentive to apply mindfulness skills practically as musicians and in daily life for the duration of the course, and the opportunity to personally explore the effects in a reflective and insightful way while demonstrating their development of a personal practice that they will be able to continue to apply in future life.

RESOURCES: Yoga mats, blankets and pillows for supine exercises, food items (raisins and chocolate).

Appendix BC - Photo Album



Meeting the “Father of Mindfulness”

Jon Kabat-Zinn, 2013



Meeting Ruth Baer, developer
of the FFMQ, 2018

Presenting at the International Conference on Mindfulness, 2018

