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Preserving the integrity of adapted Mindfulness-based programmes: An exploratory case study of adapting a mindfulness-based programme to a retail setting

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Abstract

According to the World Health Organisation, 8% of the global disease from depression is currently attributed to workplace risks (Prüss-Ustün & Corvalan, 2006). In recent years, the pace of demand for making the wellbeing benefits of mindfulness-based programmes in clinical settings available in more mainstream settings such as the workplace, has outstripped the pace of research. There is both a need for more knowledge on the process of adapting mindfulness-based programmes (MBPs) without compromising their integrity and effectiveness (Crane et al., 2016), as well as a need to explore the outcomes and process of adapted programmes, (i.e., what works and why, e.g., Lomas et al., 2017).

Underpinned by a pragmatic research philosophy and using a case study design, this thesis aimed to address these needs. A phased approach to adapting an MBP to a retail workplace setting is outlined, with two studies exploring the scoping phase and one single-case design intervention study investigating the implementation and evaluation phase.

The overall findings contribute to the fledgling body of knowledge on adapting MBPs in two ways, both of which offer advances to professional mindfulness teaching practice. Firstly, the adaptation process used provides a platform for developing a “compass” for mindfulness teachers to use whilst

Abstract

adapting programmes and protecting their integrity. Secondly, the intervention study findings strengthen the case for workplace MBPs being a facilitator of mental wellbeing and other useful employee behaviour benefits (e.g., interpersonal skills, ability to focus). The programme theory of change and associated theory of action elicited offer a clear support to mindfulness teachers in their articulation of how and why MBPS can benefit a prospective organisation.

Whilst the case study approach limits the generalisability of the findings, it paves the way for future research to refine both the adaptation process and the use of a specific theory of change and theory of action for workplace programmes.

Lay Summary

In the UK 595,000 workers suffered from stress, anxiety, or depression in 2017/18 with 15.4 million of working days lost as a result (Labour Force Survey, 2018). Organisations are looking for ways to alleviate employee stress (Anger et al 2015). The popular press's portrayal of mindfulness as a panacea for optimum wellbeing, together with the increasingly robust evidence in clinical settings has led to a rapid growth in demand for making the benefits of mindfulness-based programmes available in non-clinical and more mainstream settings, such as workplaces.

The pace of demand has outstripped the pace of research and the evidence base supporting workplace MBPS remains in its infancy. There is a need for research into both the workplace MBP outcomes in terms of wellbeing and other work-related performance benefits and process, i.e., what works and why (Lomas et al., 2017).

Furthermore, as the evidence-based mindfulness programmes were originally designed for clinical settings, trained mindfulness teachers often find themselves needing to adapt the programme to suit a different population or setting. Adaptation comes with the risk of compromising the programme's integrity and effectiveness (Crane et al., 2016). Therefore, research to further understanding of how workplace MBPS work will help to effectively adapt programmes and improve programme implementation strategies.

Lay Summary

Following a pragmatic research approach and case study design, this research project explores the process of adapting a Mindfulness-Based Programme (MBP) to a retail setting. It consists of 2 studies exploring the scoping phase and 1 intervention study exploring the implementation and evaluation phase.

The scoping phase draws from the areas of intervention development and implementation science. The first scoping study considers the desired outcomes of the MBP to inform any content adaptations. The second scoping study identifies the potential facilitators and barriers to implementation to inform any format adaptations.

The third and final study involved implementing the adapted MBP into the retail setting. This single-case design intervention explored the effectiveness of the adapted MBP in terms of outcomes and process and proposes a theory of psychological change and a theory of action.

The findings from the three studies contribute to the fledgling body of knowledge on workplace MBPS. In terms of workplace MBPs outcomes, the case study strengthens the case for MBPs being a facilitator of mental wellbeing and offers insights into other work-related benefits for employees and their organisations. In terms of process, the case study findings also

Lay Summary

offer a programme theory of change and theory of action, which develops understanding of the potential mechanisms at play.

Whilst the thesis adds to the workplace literature in terms of outcomes and process, it also has implications for practice. This visual schema offers a support to mindfulness teachers' when articulating to organisations and employees how and why workplace MBPs work. Furthermore, in terms of MBP adaptation, it proposes a possible systematic approach to adaptation, that can assist teachers in the delicate balance of adapting MBPs to other settings, whilst protecting the integrity of an MBP.

Two future research directions identified are further investigation of the emerging programme theory of action, and further exploration of participant motivation and engagement, with a view to developing programmes that support participant engagement in the self-led elements of the training.

Whilst it is recognised that the pragmatic case study approach limits the generalisability of the findings, this approach also allows for a more nuanced understanding of an area that to date has had little empirical research. It therefore assists in identifying new and pertinent research questions. It is discussed how future studies may benefit from an action research approach with regards to developing programmes which support participant engagement.

Lay Summary

This thesis thus comprises of research that both furthers understanding within the field of mindfulness research and has the potential to advance mindfulness teaching practice. It hopes to play its part in making the benefits of mindfulness accessible to more people in society.

Key Abbreviations

DMPI	Determinants of Meditation Practice Inventory
FFMQ	Five Facets of Mindfulness Questionnaire
IAP	Individual Adaptive Performance
MBP	Mindfulness-based Programme
MBSR	Mindfulness-based Stress Reduction
MBCT	Mindfulness-based Cognitive Therapy
VUCA	Volatile, Uncertain, Complex, Ambiguous (environments)
WMWBS	Warwick Edinburgh Mental Wellbeing Scale

Chapter 1 Introduction

According to the World Health Organisation, 8% of the global disease from depression is currently attributed to workplace risks (Prüss-Ustün & Corvalan, 2006). In recent years, the pace of demand for making the wellbeing benefits of mindfulness-based programmes in clinical settings available in more mainstream settings, has outstripped the pace of research. This thesis explores the adaptation of a mindfulness-based programme to a workplace setting.

This introductory chapter sets the scene of the thesis by firstly explaining how this body of work began, secondly introducing the case study organisation and thirdly the rationale for the study. Thereafter, the scope of the thesis is outlined. To conclude, a short overview of the thesis is presented to inform the reader what is to come.

1.1 How it began

The rationale for this exploratory work came from my experience as a developing mindfulness teacher on the Teacher Training Pathway with the University of Bangor and the Mindfulness Network. Like many mindfulness teachers, I wish to spread the benefits of mindfulness further in society using the MBSR curriculum in which I am trained. However, I quickly realised that the programme requires adaptation to be more accessible to cohorts in the mainstream institutions in which I work (in business

organisations, healthcare, and education). The importance of skilful adaptation has been highlighted recently in the evaluation of the Myriad Trial in schools, as was reported on BBC news (e.g., Roberts, 2022). By making the programme explicit for pupils in terms of targeting their specific needs, it is possible this may have helped participant motivation and programme acceptability (Montero-Marin et al., 2022).

There is however a tension between the extent of adaptation needed to suit a particular setting and population and the risk of negatively impacting the integrity and effectiveness of the mindfulness programme. Some conceptual literature exists in this area (Crane et al., 2017; Loucks et al., 2022), however, empirical evidence is lacking. Exploring the process of adaptation in a real-life setting by carrying out a case study research project would assist in furthering understanding of the fixed and flexible ingredients and would provide valuable guidance to the mindfulness teaching profession.

1.2 Introducing the Case Study

The selected case study organisation operates in the UK retail industry and was selected because the researcher was a former employee with continuing good relations with the team. This relationship enabled conversations with the UK CEO and HR Director about the possibility of the organisation being the case study. After several discussions, the proposal was accepted.

The scale and speed of technological advances in recent years has meant the industry is experiencing rapid change. Retail customers demand more convenience, variety, and personalisation (Retail Economics, 2018). When this research began, the case study organisation was undergoing a transformation from a “bricks and mortar” retail business model to an “omni-channel” retailing model (Deloitte, 2017). “Omni channel” is where the physical and the digital elements of retail merge to create one seamless shopping experience for customers.

During the length of this period of study, the retail industry has encountered other challenges. Pandemic lockdowns accelerated the use of stores as distribution hubs for online orders and the closure of factories and ports resulted in global supply chain issues. Restrictions in freedom of movement following Brexit led to shopfloor staff shortages, a shortage of HGV drivers and delays at ports. And now, as we come to the closure of this project, a cost-of-living crisis looms which will likely reduce consumer demand for sporting “non-essential” goods. Furthermore, radical changes are required to production, supply chain and consumer habits if retailers are committed to fulfilling their net zero carbon emissions obligations by 2050. Thus, the retail industry is characterised by continual challenges and changes, and can be described as a VUCA environment, meaning a volatile, uncertain, complex, and ambiguous environment (Troise et al., 2022).

This ever-changing landscape demonstrates that a retailer's ability to be responsive to change and thrive in complexity is strategically important (Resnick et al., 2014). Different skills, financing and business models are needed to remain innovative and efficient (Economics, 2022). The recent literature recognises that a people transformation elemnt is required to support this change (Barbosa & Casais, 2022; Salvietti et al., 2022).

The case study organisation was looking for innovative ways to support their employees thrive in this fast-paced working environment. Books such as *Reinventing Organisations* (Laloux et al., 2015) and *The Essentials of Theory U* (Scharmer, 2018) inspired the organisation to consider mindfulness as an approach to move employees away from reactive problem-solving to co-creating the future and an organisation which combines economic interests with planetary and social responsibility.

1.3 Rationale for the study

Both the HR Director and the researcher had a shared interest and inquiry into whether a mindfulness-based programme might facilitate employees and the organisation to move from "*reactivity to co-creativity*", as described in the previous section. Our experience in operational management and strategic leadership roles in the case study organisation, our experience as mindfulness practitioners, and my (fledgling) experience as a mindfulness teacher, led to the intuitive judgement that the "*natural and trainable*

capacity" of mindfulness (Kuyken et al., 2022) could be helpful to employees wishing to thrive in a fast paced and ever-changing retail working environment, which could in turn allow for more organisational agility.

Intuition can be defined as a *"cognitive conclusion based on a decision maker's previous experiences and emotional inputs*" (Burke & Miller, 1999). Whilst intuitive knowledge or judgement can be met with apprehension (Tsoukas, 2005), there is a growing body of research to support the role of skilled intuition in decision-making (Dane & Pratt, 2007; Dörfler & Ackermann, 2012). My supposition, together with supporting literature, strengthened my wish to explore scientifically my own intuitive judgements.

1.4 Thesis Scope

The identified gaps in the critical review of the literature, the case study organisation's specific needs as well as our own supposition set the scope for this thesis. It focuses on adapting a mindfulness-based programme to a retail environment. This section outlines the aims and objectives, as well as the delimitations of the thesis.

1.4.1 Aims and Objectives

The overarching aim of this exploratory research is to further understand adapted workplace mindfulness-based programmes. There are two objectives. One objective is to investigate the effectiveness of an adapted

workplace programme in terms of what works (*outcomes*) and how (*process*). It is hoped the empirical case study strengthens the evidence base on the benefits of implementing workplace MBPs, thereby strengthening the case for implementing mindfulness in the workplace. The other objective is to explore the process of adapting an MBP to the retail environment, whilst protecting the effectiveness and integrity of an MBP. It is hoped that the findings can contribute to MBP adaptation knowledge as well as enhance the skilful practice of adapting programmes to different contexts.

1.4.2 Delimitations

The thesis offers new knowledge in several important research areas outside of mindfulness (e.g., *adaptive performance, intervention development and evaluation in organisations, training in the retail industry,* and *organisational change)*. Given the time and resources available, it has been necessary to clearly refine the scope to focus solely on the field of mindfulness-based programmes.

However, even within this field, it has been necessary to further sharpen the focus. For example, the investigation of effectiveness has been narrowed to the effect on the individual employees, rather than the wider impact on the organisation. The usefulness of understanding the wider effects on the organisation is clear (e.g., gaging cost-effectiveness for stakeholders), however the scope of the project did not allow for the longitudinal research required for this. In line with this, given the multiple and varying descriptions

of the use of the term mindfulness, mindfulness is considered from an individual perspective only for the purposes of this thesis. There may be implications for the collective but the investigation of this is beyond the scope of this thesis.

Another delimitation that is important to acknowledge, relates to the process of adapting mindfulness-based programmes. The focus in this thesis is on *programme* fixed and flexible factors, rather than the *teacher* fixed and flexible factors. Whilst acknowledging the MBP teacher's competence and adherence is very important (as will be displayed during this thesis), the researcher's dual role also as teacher, meant that investigation by a different researcher would be more appropriate here. It was therefore considered out with the scope of this thesis.

1.5 Thesis Overview

The thesis comprises of nine chapters, which can be outlined in four sections.

The first section of this thesis contains Chapters 1-3. Chapter 1 (this chapter) sets the stage for the research. Chapter 2 offers a critical review of literature in the field of adapted workplace MBPS. It highlights existing gaps in literature, providing a rationale for the research aim and objectives in terms of advancing knowledge and practice. Chapter 3 explains and discusses the

methodology used in this research thesis and finishes by presenting the emerging step-by step adaptation process followed.

The second section (Chapters 4-6) consists of the scoping, designing and communication of the adapted programme. Chapter 4 and 5 contain two scoping studies. The first scoping study (Chapter 4) seeks to identify the desired behavioural outcomes of an MBP and consider if adaptations are necessary. The second scoping study (Chapter 5) seeks to understand the ideal MBP format for the case study organisation as well as the facilitators and barriers to implementation. These studies inform the design and implementation of the adapted programme for the case study organisation, which is presented in Chapter 6.

The third section (Chapters 7 and 8) covers the evaluation of the programme in terms of outcomes and process. This third and final study, an intervention study, is presented in two parts due to the volume of the study findings. Chapter 7 considers the implementation and evaluates the programme outcomes, and Chapter 8 evaluates the programme process, and proposes future research directions and implications for practice.

The thesis then closes with a general discussion and conclusion chapter (Chapter 9) which brings together the overall findings and implications of the thesis and proposes more broadly future directions for research and practice. It also offers reflections on the PhD journey.

Chapter 2 Critical Review of Literature

2.1 Introduction

The aim of this chapter is to review critically the evidence on workplace mindfulness-based programmes, to provide an understanding of what is known and not known. It highlights areas of literature that merit, or indeed require, further contributions to advance both understanding and professional practice. To close the chapter, a rationale for the thesis is provided.

2.2 Literature Search Strategy

The electronic databases PsychInfo, Business Source, DiscoverEd and Google Scholar were used to collect relevant literature. To make the search targeted and thus more manageable, keywords and dates were used to determine the scope. Keywords were "*adapting mindfulness programmes*", "*mindfulness interventions*", "*mindfulness programmes*" plus *"work*" and "*workplace*". The dates used were the year 2000 (when the academic discussion on this topic began to rise) to June 2019, although many more recent articles published during this thesis have been included due to their relevance to the topic. The technique of "snowballing" of article references was also used to search for related sources of data. Whilst the review of

literature was based primarily on academic literature, considering the current popular interest in the topic of mindfulness, other literature such as government reports, newspapers, and business magazine articles were considered relevant and thus also reviewed.

2.3 Unpacking Mindfulness

The term mindfulness, whilst associated with consciousness (Bodhi, 2013; Dunne, 2015), is used to describe a dispositional trait, a state of being, a practice, and a type of meditation (Brown et al., 2015; Davidson & Kaszniak, 2015). The multiple descriptions are in part due to the diverse origins of the construct and in part due to the various applications of the construct today. These will now be briefly outlined.

2.3.1 Western Applications from Eastern origins

The concept of mindfulness has existed in ancient Hindu and Buddhist philosophies for over 2500 years (Gethin, 2015). The word “mindfulness” was offered by TW Rhys Davids in 1881 to translate the Pali word “*sati”* from the term “*Samma sati*”, the seventh part of the Buddhist Noble Eightfold path to enlightenment (Huxter, 2015). Whilst debate surrounds the translation of “sati” to “mindfulness” (Lindahl, 2015), it is generally understood as a state of “*being*” which can reduce “*Dukkha*” (suffering), thanks to the qualities of remembering, attention, awareness, and discernment. In the Eastern

tradition, mindfulness involves a set of meditative practices which assist in cultivating this state of being.

During the last fifty years, the term “mindfulness” is increasingly present in Western society and increasingly explored in scientific research. There are several definitions and applications, and it is helpful to unpack these briefly to help make explicit the term and application being used in this research project.

In clinical psychology

From the Buddhist perspective, and probably the most commonly used definition, Kabat-Zinn (2009) describes mindfulness as: *“the awareness that arises through paying attention in a particular way, on purpose, in the present moment and non-judgmentally to the unfolding of experience moment by moment*” (p.4). Baer et al. (2006) propose mindfulness as an umbrella term for observing, acting with awareness, describing present moment experience, non-judging, and non-reactivity.

Recently, King and Badham (2019) describe mindfulness as being: “*identified with a dispositional trait or an experiential state that involves an intertwining and overlapping of awareness, attention and acceptance of present-moment experience*” (p.535). Through their definition they distinguish between s*tate* and *trait* mindfulness; *state* mindfulness referring to a state of the brain

induced by mindfulness practice and trait mindfulness referring to one's predisposition for living mindfully, i.e., their baseline.

Bishop et al. (2004) propose two key components: (1*) the self-regulation of attention* (i.e., the capacity to focus, sustain and switch attention) and (2) *the orientation to experience (*i.e., the cultivation of an open, curious, and non-reactive attitude to experience). This second component of "*orientation to experience*" draws some parallels with Kabat-Zinn's description of mindfulness as being a "*way of living*" that incorporates the following "attitudinal foundations": *(1) non-judging, (2) patience, (3) a beginner's mind, (4) trust, (5) non-striving, (6) acceptance, (7) letting go (8) gratitude and (9) generosity* (Kabat-Zinn, 2013).

This individual mindfulness perspective inspired the development of the secular Mindfulness-Based Stress Reduction programme (MBSR) in the field of clinical medicine. A central component of the MBSR course is meditative practices which strengthen the gathering of attention, raise awareness of thoughts, emotions, and body sensations, and develop a non-attached or "observer" stance, with a non-judgmental attitude. Originally developed for those suffering with chronic pain, the programme's intention was twofold: firstly, to facilitate participants' awareness of any maladaptive thinking that can lead to discomfort and unhelpful behaviours (Lau et al., 2006), and secondly, to develop the participants' capacity to respond more skilfully to their thoughts and feelings (Bishop et al., 2004; Carmody, 2009). Attending

to thoughts, feelings, pain, and external stimuli in a discerning and compassionate manner is thought to bring psychological and physical benefits. Indeed, Teper et al. (2013) note that present moment attention *without* this orientation to experience could be harmful in treating psychological conditions such as anxiety, depression, and stress.

In social psychology

Born out of research into mindlessness, another use of the term mindfulness is present in the field of social psychology. Langer uses the term to describe an active state of mind which is present moment focused, notices novelty and is open to context and different perspectives (Langer & Moldoveanu, 2000a). Whilst not intended to be likened to the Buddhist perspective, the term has some associations with the Eastern traditions, in that it refers to a present-moment orientation of the mind and an attitude of acceptance and openness to experience (Hart et al., 2013). However, it pertains more to paying attention to external stimuli rather than the Eastern approach of focus on internal stimuli such as thoughts, feelings, and sensations, before opening to external stimuli. A further contrast to the Eastern view of mindfulness is that the Langerian construct of mindfulness does not require meditation practice and is enacted rather through the deliberate act of noticing new things.

In organisational behaviour science

There is also the term organisational mindfulness (or collective mindfulness), which again is employed in different ways. Initially developed by Weick and Roberts (1993) and drawing from the Langerian construct, it considers relational capabilities rather than individual capabilities. Organisational mindfulness is most well-known for its used in high reliability organisations (organisations that operate in situations where there is potential for risk and harm). The use of close and deliberate attentional processes to reduce error and avoid catastrophe is often described as "*organisational mindfulness*" or "*collective mindfulness*". (Weick & Sutcliffe, 2006). Weick et al. (2008) suggest organisational mindfulness as a process, offering a five-point framework for organisational mindfulness in a high reliability organisation: *(1) a preoccupation with failure, (2) a reluctance to simplify interpretations, (3) sensitivity to operations, (4) under-specification of structures, and (5) a commitment to a resilient mindful organisation*.

More recently, Rupprecht, Koole, et al. (2019) considered another use for the term *collective mindfulness*. Rather than a set of practices as described by Weick et al., (2008), they describe mindfulness more as a "property" of teams and organisations and offer a provisional definition as "*collectively paying attention to the team experiences and their underlying objectives, tasks, roles and structures in a periodically consistent and non-judgmental way*" (p.33). Rupprecht, Koole, et al. (2019) also refer to the effects that individual mindfulness can have on the team and organisation, (e.g., less conflict,

improved productivity) and that the interaction between individual and collective mindfulness (e.g., a leader who is mindful may create conditions for collective mindfulness), makes clear conceptualisation difficult.

2.3.2 The reported benefits of mindfulness

There are a growing number of systematic reviews and meta-analyses reporting physical and psychological benefits associated with MBPS with clinical populations (e.g., Goldberg et al., 2019; Haller et al., 2017; Huang et al., 2016; Ledesma & Kumano, 2009; Li et al., 2017; Maglione et al., 2017). In non-clinical populations, the evidence, whilst more limited, is also indicative of enhanced psychological health and wellbeing (e.g., Burton et al., 2017; Carsley et al., 2018; Dunning et al., 2019; Jarden et al., 2019; McClintock et al., 2019).

In addition to the study of psychological benefits, there is an increasing number of studies exploring the cognitive and socio-emotional benefits of MBPS. Cognitive benefits reported include improved attentional control (e.g., Chiesa et al., 2011; Meland et al., 2015), improved cognitive performance (e.g., Rice et al., 2017), decreasing attentional lapses (e.g., Jha et al., 2015), increased attentional performance (e.g.,Lutz et al., 2008; Mardon et al., 2016) flow state enhancements (e.g., Aherne et al., 2011; Kaufman et al., 2009; Scott-Hamilton et al., 2016), increased cognitive flexibility (e.g., Moore & Malinowski, 2009) and increased protection of

working memory (e.g., Jha et al., 2017). Socio-emotional benefits reported include increased empathy and perspective-taking (e.g.,Dekeyser et al., 2008; Van Lange & Van Doesum, 2015), responding more constructively during relationship stress (Barnes et al., 2007), an increased sense of relatedness and interpersonal closeness (e.g., Brown & Kasser, 2005; Brown & Ryan, 2003) and enhanced prosocial behaviour (e.g., Donald et al., 2019). The study findings for cognitive and socio-emotional benefits are largely preliminary or qualitative in nature and there is a need for randomised control trials to ratify such findings.

Whilst the reported benefits of mindfulness are promising, it is important to be aware of the possible drawbacks of MBPs and MBP research.

2.3.3 The proliferation of Mindfulness-based Programmes

Whilst mindfulness has a dispositional quality (Baer & Lykins, 2011), a recent description of mindfulness refers to it as a "*natural and trainable capacity*" (Kuyken et al., 2022) and mindfulness-based programmes are a platform for enhancing trait mindfulness (Jamieson & Tuckey, 2017).

The development and implementation of mindfulness-based and -informed programmes in Western society began in a clinical setting. Examples include *Mindfulness-based Stress Reduction (Kabat-Zinn, 2003)*, *Mindfulness-Based*

Cognitive Therapy (Teasdale et al., 2002), *Acceptance and Commitment Therapy* (Hayes et al., 1999) and *Dialectical Behaviour Therapy* .

The favourable psychological, cognitive, and social-emotional outcomes led to the development and implementation of these programmes in other settings and for other populations. Examples include the Mindfulness in Schools Project , Mindfulness Meditation Training for Sport (Baltzell & Akhtar, 2014) , Mindfulness-based Mental Fitness programme for the military (Jha et al., 2010), All-Party Parliamentary Group on Mindfulness in politics (Bristow, 2019), as well as implementation in workplaces in corporations such as Google, with their *"Search Inside Yourself"* programme at Google (Caporale-Berkowitz et al., 2021) and Mindful Leadership at General Mills (Gelles, 2012).

However, the scientific evidence supporting programmes in these areas is nascent. The gap between research and the widespread implementation of workplace mindfulness programmes remains large (Bristow, 2016). Programme research has not been able to keep pace at the same rate as the above-mentioned surge in programme implementation across several fields. It implores the question: *what do we know and not know about MBPs in these different settings?* Focussing on this project's case study organisation, the next section will consider this in the workplace setting.

2.4 Workplace MBPs outcomes: - what we know and do not know

2.4.1 The benefits?

Wellbeing

The most developed body of empirical literature relates to the effects on employee wellbeing. To date, existing systematic reviews and meta-analyses on workplace MBPS studies are predominantly in the area of healthcare workers (e.g., Burton et al., 2017; Ghawadra et al., 2019; Lomas et al., 2019b). These support the premise that a workplace MBP may be beneficial for employee wellbeing. Example findings of positive wellbeing outcomes are stress reduction (Klatt et al., 2009; Wolever et al., 2012), decreased emotional exhaustion (Hülsheger et al., 2013) reduction in burnout symptoms (Taylor et al., 2016) and improved psychological wellbeing (Kersemaekers et al., 2018).

The body of empirical evidence in other workplace settings is in its infancy and predominantly exploratory in nature. Vonderlin et al. (2020) meta-analysis of RCTs in a variety of settings provide evidence to support employee wellbeing benefits but also point to the need for further investigation to understand if an MBP is helpful for other work-related outcomes such as work performance.

Work-related behaviours and performance

The body of literature on the effect of MBPs on work-related behaviours and performance) is to date largely conceptual with empirical findings preliminary and exploratory in nature.

The conceptual literature proposes that mindfulness can lead to increased creativity, innovation, engagement, productivity, decision-making, leadership, communication skills, and working relations (e.g., Chaskalson, 2011; Good et al., 2016; Hyland et al., 2015; Reitz, 2014). The empirical evidence base to date, whilst limited, spans many of these workplace behaviour and performance aspects, and studies suggest increased employee engagement (e.g., Leroy et al., 2013; Liu et al., 2020; Shiba et al., 2015), increased workplace performance and productivity (e.g., Badham & King, 2021; Dane, 2011), leadership development (e.g., Atkins & Styles, 2015; Donaldson-Feilder et al., 2022; Reitz et al., 2020; Rupprecht, Falke, et al., 2019; Sauer & Kohls, 2011), enhanced interpersonal relations (e.g., Chaskalson & Reitz, 2018; Donald et al., 2019; Donaldson-Feilder et al., 2022; Eby et al., 2020; Kersemaekers et al., 2018; Reb et al., 2015; Rupprecht, Falke, et al., 2019) and increased openness to organisational change (e.g., Hyland et al., 2015; Niemiec et al., 2010; Schuyler et al., 2018).

However, as highlighted in the systematic reviews that exist (e.g., Bartlett et al., 2019; Eby et al., 2019), the findings are preliminary, often mixed or found to be context dependent. For example, Wolever et al. (2012) found no productivity gains post programme and yet Dane and Brummel (2014)

found improvements in task performance in a hectic restaurant working environment. Glomb et al. (2011) found that an increase in mindfulness and thus reduction in autopilot was not helpful for production line employees. Another example of where it is context dependent is some roles being less “judgemental” and fostering insight and creativity is useful and in other roles it might be useful to have more evaluative judgement.

The question that remains is is what works, for whom and in what setting (Crane & Griffiths, 2021). There is yet to be any studies in the retail working environment, with the closest link being healthcare workers (e.g., Morgan et al., 2015) or restaurant workers (e.g., Dane & Brummel, 2014). Thus a study considering the effects on employee wellbeing and work performance in the retail setting would be helpful.

2.4.2 The dark side?

Whilst the literature suggests that workplace MBPs hold promise for wellbeing and beyond, it is important to be aware of potential drawbacks from implementing a workplace MBP.

2.4.3 Adverse effects of a workplace MBP

Firstly, given that mindfulness-based programmes appear to facilitate positive psychological and behavioural outcomes, this also means the programmes potentially have the capacity to produce negative outcomes. Whilst there are several popular press articles purporting that mindfulness can bring harm (e.g., Firestone, 2013; Foster, 2016). The body of scientific literature on harmful effects is small in comparison to positive effects and includes meditation-related psychosis (Lomas et al., 2015), the re-experiencing of traumatic memories (Treleaven, 2018) and the deterioration of symptoms in cancer patients (Reynolds et al., 2017). Between 0 -10.6% of participants report harmful effects, which is in line with the percentage in other therapeutic interventions (Van Dam et al., 2018). As the studies on adverse effects are largely qualitative and without a control group (Van Dam et al., 2018), Baer et al. (2019) call for more systematic research into the potential adverse effects and their causes. It can be important also in the design of MBPS, for example, understanding who might be at risk.

Secondly, and more specifically to the workplace, there is a small amount of conceptual literature on potential adverse effects to the workplace, in particular in terms of staff turnover. Kudesia (2019) refer to a possible loss in employee motivation and thus staff turnover when an MBP

develops an employee's mindset to be more flexible, potentially developing a tension between this and the organisation's more fixed structure or way of working. It is also thought that Mindfulness-based programmes help participants consider and behave more in accordance with their values and that this can lead to a realisation that their values differ from the objectives of the organisation (Ericson et al., 2014).

2.4.4 The commercialisation of mindfulness

there is a body of literature that views the implementation of MBPs as wellbeing programmes in the workplace as reductionist, suggesting it encourages the "commercialisation of Buddhism" (e.g., Purser, 2019; Purser, 2018). Some suggest it places the responsibility for psychological stress on the employee, rather than the conditions of the organisation which could be a source of stress, for example through the threat of redundancy, lack of autonomy in decision making, long work hours, unrealistic job demands (Mabey & Knights, 2017). Some hold a more equivocal view (e.g., McCown, Reibel, Micozzi, et al., 2016; Wilson, 2014), seeing the wider potential of mindfulness to encourage organisations to apply a more ethically and socially engaged approach, and call for workplace MBPs to widen their scope from addressing individual stress reduction to transforming companies into kinder,

more compassionate and sustainable organisations, that understand their social, political and ecological responsibility in the universe.

2.4.5 Methodological concerns

There are numerous methodological concerns which threatens the validity of workplace studies. Indeed, methodological rigour of workplace studies is not considered as strong as those in the clinical setting (Kreplin et al., 2018). Whilst difficult to achieve in real-world settings, there is a calling for more RCTS, larger sample sizes and follow-up studies (Bartlett et al., 2019) . Follow up would be helpful as behavioural outcomes and organisation-related outcomes may take longer to show. It is important for demonstrating any lasting effects of the training and in economic effect.

2.4.6 Wide variety of intervention criteria

One of the main critiques of mindfulness-based workplace programmes, is the lack of detail given about the content and format of the programmes. Without this information, it makes it difficult to compare studies (Jamieson & Tuckey, 2017; Lomas, Medina, Ivtzan, Rupprecht, & Eiroa-Orosa, 2017).

As illustrated in several reviews (Bartlett et al., 2019; Eby et al., 2019; Jamieson & Tuckey, 2017) there are many different intervention characteristics. In terms of content characteristics, some are adapted from

MBSR, others are yoga-based or based on Acceptance and Commitment therapy. In terms of training delivery characteristics, there are many variations on *length of training, presence or not of a teacher, group discussion, written materials, online modules*, home practice and workplace practice. There are also differences in terms of the desired outcomes e.g., *reduction in stress, enhanced self-compassion, work performance, job satisfaction.*

In conclusion, as Rupprecht, Koole, et al. (2019) expressed, there is a need to gain insight on the "*potential and limits*" of mindfulness in the workplace. Whilst the evidence base is growing there a need to design methodologically rigorous studies to ascertain the scope of MBPS beyond employee wellbeing.

2.5 Adapting Mindfulness-based Programmes to the workplace

Mindfulness-based programmes are adapted for many reasons: to make mindfulness more inclusive to diverse groups of people (e.g., children), to take account for individual differences (e.g., different learning styles), to prioritise different outcomes (e.g., performance), or even to take advantage of what new technologies or artificial intelligence can offer.

Typically, adaptations involve shortening classes or meditation practices, i.e., reducing the dosage. There is literature warning of the risk that adapting "too far" can dilute the programme and compromise the

effectiveness and integrity of the programme (e.g., Crane, 2017; Crane et al., 2017; Crane & Hecht, 2018).

2.5.1 What adaptations exist?

As mentioned in section 2.5.3, a diverse variety of workplace MBPs exist of different lengths and formats. This the result of adapting programmes to suit the differing working environments, populations, and desired outcomes of the organisation.

Some programmes have been “borrowed” or “blended” from the clinical programmes (Oswick et al., 2011) (Borrowing refers to taking an evidence-based programme for a clinical setting and implemented without adaptation and blending refers to where an evidence-based programme is fused with other theories relevant for that setting). Some programmes are mindfulness-informed m which means they are influenced by mindfulness meditation practice and teachings, and others are mindfulness-based, which means that the education is also embedded within the mindfulness practice and teachings (Griffith, Hastings, et al., 2019).

2.5.2 The costs of adaptation

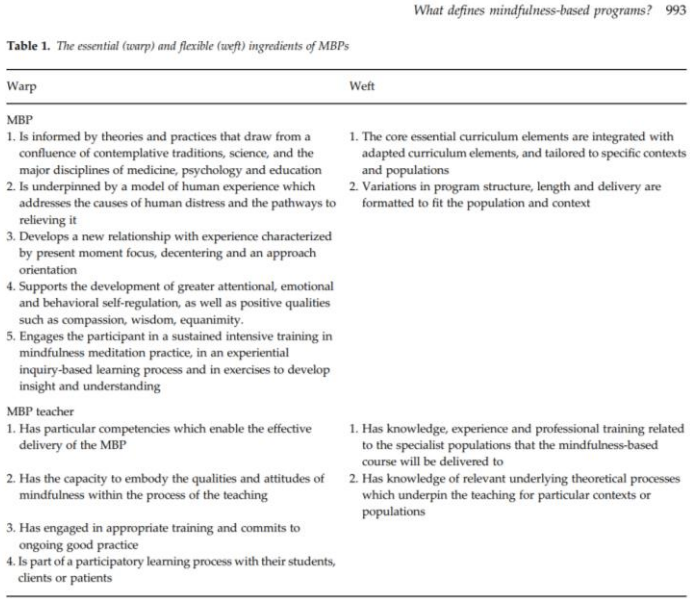
Whilst adapting programme is necessary to enhance the accessibility, acceptability and thus outcomes of programmes (Loucks et al., 2022),

concern has been expressed about the associated risks of adaptation. For example, Crane et al. (2017) speak to the risk that adapted programmes may be modified to such an extent that the mindfulness-based content is diluted, threatening the integrity and effectiveness of MBPS. Furthermore, there are other costs to adaptation such as the fact it requires time and resources to adapt and research, and implementation involves training teachers (Loucks et al., 2022).

2.5.3 Support for adaptation

Crane et al. (2017) identified fixed and flexible factors of MBPs with a view to supporting the preservation of the integrity of a mindfulness-based programme, as illustrated below in Table 2.1. However, it should be noted that these factors are yet to be empirically tested.

Table 2.1 The essential (warp) and flexible (weft) ingredients of MBPs (Crane et al., 2017)



What defines mindfulness-based programs? 993

Table 1. *The essential (warp) and flexible (weft) ingredients of MBPs*

Warp	Weft
MBP	
1. Is informed by theories and practices that draw from a confluence of contemplative traditions, science, and the major disciplines of medicine, psychology and education	1. The core essential curriculum elements are integrated with adapted curriculum elements, and tailored to specific contexts and populations
2. Is underpinned by a model of human experience which addresses the causes of human distress and the pathways to relieving it	2. Variations in program structure, length and delivery are formatted to fit the population and context
3. Develops a new relationship with experience characterized by present moment focus, decentering and an approach orientation	
4. Supports the development of greater attentional, emotional and behavioral self-regulation, as well as positive qualities such as compassion, wisdom, equanimity.	
5. Engages the participant in a sustained intensive training in mindfulness meditation practice, in an experiential inquiry-based learning process and in exercises to develop insight and understanding	
MBP teacher	
1. Has particular competencies which enable the effective delivery of the MBP	1. Has knowledge, experience and professional training related to the specialist populations that the mindfulness-based course will be delivered to
2. Has the capacity to embody the qualities and attitudes of mindfulness within the process of the teaching	2. Has knowledge of relevant underlying theoretical processes which underpin the teaching for particular contexts or populations
3. Has engaged in appropriate training and commits to ongoing good practice	
4. Is part of a participatory learning process with their students, clients or patients	

At the time of conducting the research project, apart from the Fieldbook for Mindfulness Innovators (Sanghvi, 2019), no other scientific literature existed regarding how to adapt an MBP whilst protecting its integrity. Since this research project, Loucks et al. (2022) have written a paper which, in light of the evident need for adapted MBPs, explores the why, when and how to adapt MBPs. It refers to knowledge that is necessary to those adapting MBPs as including (1) *the essential ingredients of an MBP, (2) the aetiology of target health outcomes, (3) existing interventions that may work for the population and context (4) the organisation's delivery systems and settings and (5) the culture, values and communication patterns of the target*

population (Loucks et al., 2022). They also propose eight steps to adaptation, the first five of which are relevant to mindfulness teachers and the latter steps more to researchers. This shall be considered further in the chapter on designing and communicating an adapted MBP (Chapter 6).

To adapt an MBP to a workplace setting, it is important to not only further understanding on what works but also on "how" it works i.e., identify the underlying mechanisms of change at play. The next section considers what is known and not known in terms of mechanisms, moderators, and mediators of a workplace MBP.

2.6 Workplace MBP process: what we know and do not know

Some conceptual literature exists on how workplace MBPs function (Good et al., 2016; Shahbaz & Parker, 2021) but as of yet the empirical evidence is sparse. Drawing from the psychotherapy literature (Goldberg, 2022), it thought that, as well as mindfulness, common factors and therapeutic factors may affect MBP outcomes (Canby et al., 2021). Indeed, mechanisms can be related to the *participant*, the *programme*, or the *environment* (in this case, an organisational setting). To provide structure to this section, the mechanisms will be considered in that order.

2.6.1 Participant-related mechanisms

Mechanisms of mindfulness

Conceptually, there are numerous suggestions on how mindfulness works within the participant. For example, Baer (2003) suggest the mechanisms of exposure, cognitive change, self-management, relaxation, and acceptance. Brown and Ryan (2003) propose the mechanisms of insight, exposure, non-attachment, enhanced mind-body functioning and integrated functioning. Shapiro et al. (2006) propose an over-arching mechanism named "*re-perceiving*" which encompasses the different cognitive, emotional, and neurobiological processes. This refers to developing an "observer stance" of one's thoughts or experiences. It shares similarities with other psychological concepts such as *meta-cognitive awareness*, *de-centering* (Bernstein et al., 2015); *non-attachment* (Vago & Silbersweig, 2012), *decoupling* (Glomb et al., 2011), *dereification* (Condon, 2017). Carmody et al. (2009) refer to it as a process of *re-cognition* and Siegel (2007) as "*attunement or discernment*".

Some models address attentional mechanisms (e.g., Grabovac et al., 2011; Hölzel et al., 2011), others address emotion regulation processes (e.g., Farb et al., 2014), and many also propose neurobiological

mechanisms (e.g., Lutz et al., 2008; Vago & Silbersweig, 2012; Young et al., 2018; Zeidan et al., 2015); The use of FMRi (Functional Magnetic Resonance Imaging) has allowed more nuanced investigation into the neurocognitive and affective benefits, which strengthens the reliability of the evidence. For example, studies have discovered an increased activity in the pre-frontal cortex and reduced activity in the amygdala (e.g., Hölzel et al., 2011; Siegel, 2007), illustrating an improved ability to self-regulate (Boyd et al., 2018).

In terms of participant-related mechanisms specific to the workplace, Good et al.'s (2016) integrative review on mindfulness in the workplace presents a mechanistic model whereby *attention regulation* is the key component which can affect an individual's cognition, emotion, behaviour, and physiology and that these can in turn impact workplace wellbeing and performance (see Figure 2.2). The empirical evidence is however lacking.

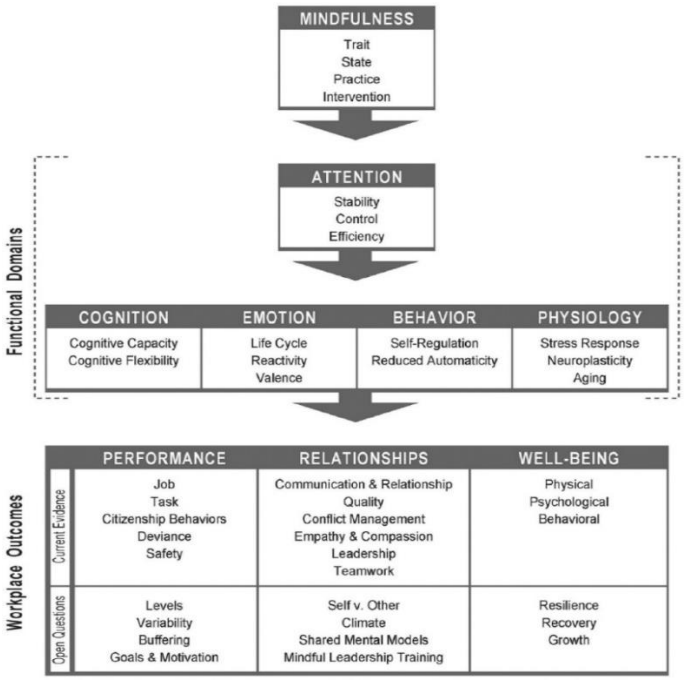


Figure 2.2 Integrative Framework Relating Mindfulness to Workplace Outcomes (Good et al., 2016)

Participant Engagement

The literature on the role of participant engagement in terms of dosage of meditation practice offers mixed findings. For example, whilst Davidson et al. (2003) found no relationship between the levels of logged home practice and changes in self-report scores during a workplace MBSR programme, Carmody and Baer (2008) found there to be a relationship between formal home practice of mindfulness meditation exercises and levels of mindfulness and psychological wellbeing. Hawley et al. (2014) found that engaging in formal practice was associated with decreased rumination where informal practice was not. Crane et al. (2014) identified a

significant association between daily duration of formal practice and programme outcomes, where participants who carried out the home practice for three or more days a week were half as likely to relapse with depression. Soler et al. (2014) suggests that frequency of practice rather than meditation type or length of meditation was more likely to increase mindfulness.

Generally, participant engagement in MBPs is found to be challenging (Wyatt et al., 2014), often due to participant-related barriers such as lack of time or sceptical attitudes towards the efficacy of mindfulness. Clinical and non-clinical meta-analyses report drop-out rates between 3% and 37% (Khoury et al., 2015).

To measure participant engagement and understand differences in levels and types of practice, participant engagement must first be clearly defined. And, like defining engagement in psychological therapies more broadly (Tetley et al., 2011), there is a lack of consensus on the definition of participant engagement. Bannerjee's (2018) suggests that MBP engagement involves *physical engagement* (i.e., session attendance and engagement in recommended between session mindfulness practices) and *psychological engagement* (motivation and commitment to practice).

To synthesise, there is a need for more empirical research to support or challenge the conceptual mechanisms of mindfulness and to investigate further the role of participant engagement in programme effectiveness.

2.6.2 Programme-related mechanisms

An MBP is a multi-component programme (i.e., it contains different elements e.g., psychoeducation, group inquiry, meditation, home practice). This means there are many programme variables which can influence participant outcomes. Whilst not based on scientific evidence, Sanghvi (2019) proposes a list of ten potential active ingredients as illustrated in Figure 2.2. There is however no relative weighting attributed to each factor and this area requires further investigation. These are: (*1) length and frequency of sessions, (2) formal meditation practice, (3) informal practices, (4) group size and diversity, (5) motivations, intentions, or belief systems of participants, (6) level of home practice, (7) style of inquiry processes, (8) skills and characteristics of the teacher, (9) the mindfulness capacity in teacher, and (10) the psychoeducational content* (2019).

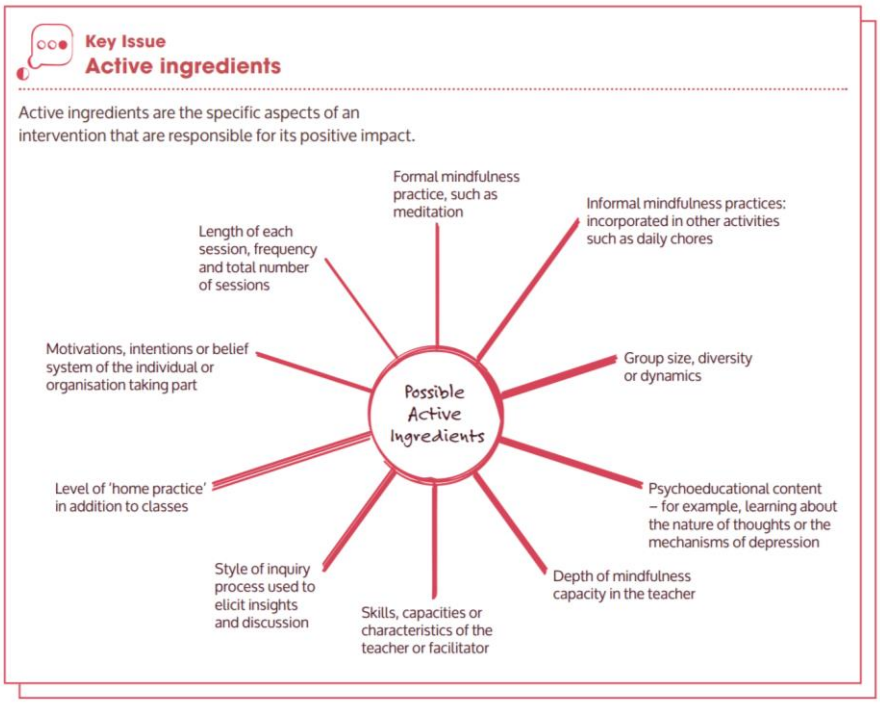


Figure 2.3 Active Ingredients of an MBP (Sanghvi, 2019)

Beyond this list, there is to date a paucity of literature on the role of these ingredients in programme outcomes (e.g., as mediators or moderators). Indeed, one of the criticisms of MBP studies is the lack of detail given on the intervention components (Lomas, Medina, Ivtzan, Rupprecht, Hart, et al., 2017). To understand the effects of programme-related mechanisms, more detail on programme components needs to firstly be defined, and then measured. Thereafter, to investigate the effect and strength of the different programme components, there is a need for research using dismantling research designs which investigates the different components. For example, measuring the effect of different lengths of programme, different types of mindfulness practice (e.g., c*ompassion-based*, *awareness-based*, informal or formal practices), or using different delivery

methods (audio recordings, written material, group discussion, online modules, retreats) would be helpful. The empirical findings to date are limited and mixed here. For example, preliminary findings from Carmody and Baer (2008) found that shorter classes during the 8-week course still resulted in reductions in psychological distress. However, van Berkel et al. (2014) did not contain all the essential ingredients of the MBSR and yet no significant outcome differences were found.

In terms of programme factors, the need to adapt MBPs to the specific workplace settings has led to a wide variety of MBP formats implemented in the workplace. Example modifications include shorter, lower dose, 6-week programmes (Klatt et al., 2009), online programmes (Aikens et al., 2014; Grégoire & Lachance, 2015; Prasek, 2015; Wolever et al., 2012), self-guided programmes (Burnett & Pettijohn, 2015), 1-hour mindfulness-in-movement weekly (Klatt et al., 2015)) or on the spot mindfulness (Hafenbrack, 2017). As Lomas et al., (2017) state, this has made it difficult to get a clear picture of the common effects of workplace MBPs. Efficacy of a mindfulness-based approach in the workplace.

In summary, there is a clear need to investigate the effects of the different programme factors, which in turn should help inform skilful adaptation decisions.

2.6.3 Organisation-related mechanisms

An MBP often operates as part of a wider organisational system and the conditions of that system can thus also impact on programme outcomes. Organisations are complex and dynamic systems with multiple components and levels which interact with training in unpredictable ways. For example, Reb et al. (2015) found supervisor support for an MBP was positively related to employee awareness. It also found that organisational constraints such as conflicting job demands were negatively related to employee awareness. There is a need for longitudinal real-world effectiveness studies that investigate how the organisational setting interacts with the programme.

In terms of the effect of organisational factors on programme outcomes, the empirical literature is yet to be developed. Rupprecht, Koole, et al. (2019) talk of the importance of taking into consideration the potential mediators and moderators of a workplace MBP (e.g., supervisory support, role clarity, organisational culture). Shahbaz and Parker (2021) framework of antecedents, mediators, moderators, and outcomes of workplace MBPs highlights the potential workplace antecedents and moderators of an MBP. Longitudinal studies with multi-level designs, with the potential mediators and moderators on each level (e.g., supervisory support, role clarity, org culture) are needed.

To summarise, there is a clear need to carry out process evaluations of MBPS at the level of the participant, programme, and organisation to aid understanding of the moderating and mediating roles of the factors. This will in turn enable more skilful blending or adaptation of MBPs in other settings.

2.7 Thesis Rationale

This research project intends to address the need for further research on the effects of mindfulness on work-related behaviours and performance and the mechanisms of change involved. Considering the identified gap in workplace MBP research in a retail setting, a retail setting has been chosen. There is also a sparsity of empirical research on adapting MBPs to different settings. This thesis hopes to contribute to knowledge in this area thus improving the design of workplace MBPs and the support for MBP teachers during the adaptation process.

Chapter 3 Research Paradigm and Methodology

A research paradigm is "*the set of common beliefs and agreements shared between scientists about how problems should be understood and addressed*" (Kuhn, 1996), p.45. It is these sets of assumptions and beliefs that influences scientists' decisions on what should be studied, how research should be done and how results should be interpreted (Bryman 2004). In other words, knowing a researcher's philosophical position helps to understand the choice in research methodology and methods chosen.

The purpose of this chapter is to provide an overview of my research philosophy and how this has informed my methodological choices. It presents the steps taken to ensure rigour and the ethical considerations. It concludes by introducing how the thesis is structured.

3.1 Ontological and epistemological position

Ontology and epistemology shine a light on both explicit and implicit assumptions about the nature of the social world and how it may be investigated (Burell & Morgan, 1979). Ontology refers to assumptions about the nature of reality (i.e., it questions the way in which the world is viewed). There are two perspectives: constructivism and objectivism. A constructivist believes that learning is internally controlled and mediated by the learner, and

so there can be several truths, making knowledge subjective. Objectivists believe that learning is externally mediated, and that there is one permanent objective truth about reality. I use a constructivist approach because, in line with James (1907), it is my view that the questions and consequences arising from an inquiry are more important than seeking one single truth.

Epistemology is concerned with the assumptions of what constitutes knowledge and how this knowledge is acquired (Burell & Morgan, 1979). Here again, there are two main perspectives: positivism and interpretivism. From a positivist stance, the observer is independent of the research subject and rigid criteria for validity exist. An interpretivist however would say that the observer cannot be independent of the topic being researched and thus no research can be free from a researcher's own knowledge, understanding and assumptions. For interpretivists, validity arises out of relationships or dialogue between community members (Sparkes, 1998).

Whilst I believe that some knowledge can be transformed into quantifiable data (i.e., a positivist standpoint), my experience as a practitioner (HR Director, Executive Coach and Mindfulness Teacher) shapes my conviction that the internal interpretations of individuals' experiences need to be considered and that it is not possible to separate the social context from the research: "*neither the life of an individual nor the history of a society can be understood without understanding both*"(Mills, 1959), p.11. It can be said, therefore, that I have a leaning towards an interpretive and socially

constructed view of the world. It also seems to me more fitting for research into mindfulness-based programmes, where there is a preference for "*non-striving*", *"letting be*" and "*non-judgement*", ideas that can seem rather foreign to the positivist scientific approach of measurement and evaluation.

The researcher's philosophical stance underpins the research methodology chosen (Jupp & Sapsford, 2006). It is my conviction that the research problem is more important than the underlying philosophical assumptions and that a continuum exists between objective and subjective viewpoints. This is often described as "pragmatic" and the following section unpacks pragmatism as an alternative paradigm to the more traditional philosophical knowledge approach of ontology and epistemology (Lincoln et al., 2011).

3.2 Choosing the paradigm of pragmatism

Applied researchers often embrace an interpretive view of knowledge, that is individualised and context specific, believing it is important to describe the case and its context (Creswell & Miller, 2000). My ontological and epistemological standpoints are reflected in the aims and chosen method of inquiry in this research thesis: I choose the paradigm of pragmatism. The origins of pragmatism are in the work of Peirce (1972), James (1907) and Dewey (1998) and Rorty (1982).

As previously mentioned, pragmatism seeks to breaks down the dualism between positivism and constructivism (Creswell, 2003). Instead, it considers the problems under study are more important than the underlying philosophical assumptions and that the research question itself determines the inquiry approach (Creswell et al., 2011).

In the choice of pragmatism, it is not that I am arguing against the positivist research in organisational research, more that there is an alternative approach well suited to this area of social science. As James (1907) skilfully wrote pragmatism "*unstiffens all our theories, limbers them up and sets each one at work*" (p.52).

Pragmatism is a philosophy of knowledge construction which emphasizes practical solutions to applied research questions (e.g., in business, sports psychology, management or social research), it offers researchers a useful methodological framework for research which allows the researchers to embrace the complexity of social systems. The veracity of facts is tested through dialogue, usefulness, and consequences of knowledge. It acknowledges the value of both deductive and inductive research and will often use multiple methods and diverse data collection within an investigation (Clarke & Visser, 2019).

However, it is important not to reduce it to "practicality". Pragmatists argue that the scientist must consider social, historical, and contextual factors on the human experience and that many problematic situations require

thoughtful reflection (Dewey, 1998).

3.3 Choosing a case study research design

The idiographic nature of research in organisations (Luthans & Davis, 1982) lends itself to a naturalistic line of inquiry (Lincoln et al., 2011). In line with this, a case study design was chosen for two main reasons. Firstly, it is considered a useful design in areas of applied research where there is little existing knowledge, and the variables are still being explored. It provides a general and contextual understanding of the research topic and as such can be an effective precursor to future research in the area (Cassell et al., 2006; Lee et al., 2007; Yin, 2009). It is therefore fitting for research in the area of mindfulness-based programme research, which is in its infancy. Secondly, it is considered an effective methodology to investigate and understand complex social issues in a real-world setting. Whilst a case study cannot be described as wholly objective, it does provide an interpretation of the social system being studied. This makes it suitable for research in areas where it is difficult to control confounding variables, such as an organisational setting.

Case study design is not associated with a fixed ontological or epistemological position (Rosenberg & Yates, 2007). However, Merriam (1998) views the case study as offering a pragmatic approach to social-constructivist inquiry and seeks to understand in depth the phenomenon in each case. Rather than testing hypotheses, it uses methods aimed at

generating inductive reasoning and interpretation. The case study design also allows for multiple methods. Some scholars, particularly from the positivist realm, view mixed methods as lacking rigour thus threatening the quality of the research (Boblin et al., 2013). However, pragmatism embraces the use of multiple methods. I concur with Creswell et al. (2011) who propose that to understand the breadth and depth of a research area, using mixed methods rather than one single method helps to both broaden and deepen knowledge in an area. Indeed, Merriam's pragmatic approach to case study design demonstrates that when the integrity of the design is robust, methodological flexibility is possible and applicable. The specific methods used in this research project are detailed in each study chapter. Broadly speaking, whilst some quantitative measures are used, qualitative measures prevail to aid in understanding the context and to develop meaning.

Another positivist argument is that case study findings cannot be generalised, thereby limiting the external validity of the research design. However, as acknowledged by Cassel and Symon (1994) some experiences reported in a case study will be general to many organisations. So, whilst there is a clear understanding that the findings are not generalisable, it is hoped the findings can lead to pertinent new lines of inquiry for adapting MBPs to the workplace more generally.

A pragmatic case study should not only have practical and contextual utility, but it must also be rigorous (Denscombe, 2008). Ensuring rigour is fundamental to support the strength of findings and their implications (Clark & Ivankova, 2015). The next section makes explicit the steps taken to ensure rigour in this research.

3.4 Actions to ensure rigour

Ensuring rigour or “trustworthiness” (Lincoln and Guba, 1986) in the design and methods used in qualitative research is important to establish confidence in research findings and conclusions. Similar to the four quality criteria used in quantitative research, criteria also exist in qualitative research: (1) credibility: how true are findings to participants’ views (parallels internal validity),(2) transferability: can findings be used in other similar settings (parallels external validity), (3) dependability: how stable the data is (parallels reliability), and (4) confirmability: how neutral and accurate the data is (parallels objectivity).

In this thesis, each study provides a detailed description of the data collection and data analysis. This section will explain more broadly the general steps taken to ensure the thesis findings are trustworthy. Rigour is ensured through the following actions: (1) the careful selection of the mindfulness measure and the use of mixed methods, (2) the use of a systematic approach to the research steps, as well as inter-rater reliability, member-checking and critical

friends in data analysis, and (3) thoughtful and deliberate researcher reflexivity throughout the project. Each of these points will now be briefly outlined.

3.4.1 Careful selection of the mindfulness measure and use of mixed methods

As a result of the multitude of definitions of mindfulness, there are numerous psychometric scales for measuring mindfulness. There are eight validated mindfulness scales for adults that measure trait mindfulness: *the Freiburg Mindfulness Inventory* (Walach et al., 2006), *the Mindful Attention Awareness Scale* (Brown & Ryan, 2003)*, the Cognitive and Affective Mindfulness Scale-Revised* (Feldman et al., 2007), *the Southampton Mindfulness Questionnaire* (Chadwick et al., 2008)*, the Kentucky Inventory of Mindfulness Scale* (Baer et al., 2004), *the Five Facet Mindfulness Questionnaire* (Baer et al., 2008)*, the Philadelphia Mindfulness Scale* (Cardaciotto et al., 2008), *and the Toronto Mindfulness Scale* (Lau et al., 2006).

Some of them measure different facets of mindfulness, some use different scoring (e.g., a score for each facet or general score), some measure state mindfulness and others trait mindfulness, some scales are suited to different audiences, and the length of the scales varies. Overall, mindfulness questionnaires have typically strong psychometric qualities, with strong

internal consistency, adequate to good test-retest reliability, and strong factor structure and construct validity (Park et al., 2013).

To strengthen construct validity, a careful selection of an appropriate scale to suit the participants and study context was conducted (Goldberg et al., 2017). It was decided to choose a scale designed for general populations, appropriate to a beginner meditator, short in length and that had previously been used in the workplace setting. The selection was between the Mindfulness Attention Awareness Scale (Brown & Ryan, 2003) and the Five Facets of Mindfulness Questionnaire (Baer et al., 2012). Whilst both scales have been previously used in workplace research, the FFMQ was preferred as it included attitudinal dimensions in addition to attention and awareness, whereas the MAAS is a one-dimensional scale on attention and awareness. This was considered important because it is thought that the effect of present moment awareness is moderated by the qualities of awareness (i.e., the attitudes). Indeed, Baer et al. (2019) found that present moment awareness was only helpful if it held the qualities of non-judgement and non-reactivity. Another reason the FFMQ scale was chosen was that it offered a shorter 15-item scale, with the same factor and psychometric properties as the 39-item questionnaire(Gu et al., 2016). The shorter version demonstrated acceptable internal consistency (alpha = 0.8 to 0.85).

There has since been the creation of a psychometrically valid “Mindfulness at Work" Scale (Hülsheger & Alberts, 2021) but this was published during the writing up phase of the research project.

Mindfulness assessment relies on the use of self-report, which can result in discrepancies between actual and reported mindfulness, item miscomprehension, response bias (e.g., the Hawthorne effect), self-enhancement or halo effects, and timing effects (Baer et al., 2019; Bergomi et al., 2013; Grossman, 2008).

To reduce the risk of bias, alternative objective methods would ideally be used such as third-person perspectives(Sauer et al., 2016), biological and neurological feedback or ecological momentary assessment (Shiffman et al., 2008) or objective behavioural tasks such as Levinson et al. (2014) breath counting task. However, these were not within the scope of the project. Therefore, to strengthen rigour, interviews were carried out to act as a form of triangulation for the self-report scale findings. Whilst interview data is also “self-report”, it can help to either confirm or refute the scores.

3.4.2 Use of a systematic approach, inter-rater reliability, member-checking and critical friends in data analysis

Given its theoretical and epistemological independence and flexibility, Braun and Clarke's (2006) thematic analysis was chosen to qualitatively analyse the experiences and reality of the participants. The six step approach to working with the data strengthened rigour by systematically following a set procedure:(1) *becoming familiar with the data through reading and re-reading data and taking notes*, (2) *identifying interesting and meaningful features of the data and generating preliminary codes*, (3) *analysing and collating the codes into themes*, (4) *reviewing and ensuring the themes are clearly distinct,* (5) *naming and defining the themes*, and (6) *producing a report with compelling extract examples to illustrate the themes that relate to the research question*. The continual checking and comparison of data in this process helped to establish confirmability.

There has been a move towards the use of critical friends in recent years (Smith & McGannon, 2018). Learning as I go, there has also been a movement in this direction in my research. Now understanding that inter-rater reliability assumes one truth, which follows a more positivist stance, the critical friend concept is more in line with my research philosophy; it ensures reflexivity through the challenging of each other's construction of knowledge. It will be noted that the three studies used different means to establish rigour in data analysis. For example, the first scoping study uses inter-rater reliability and member checking, and the second scoping study and intervention study use the concept of critical friends (Cowan & Stroud, 2016).

3.4.3 Writing a reflexive journal

Reflexivity recognises the researcher as a participant within research and considers how the social conditions of the research can influence the researcher and their findings. Indeed, the researcher is often described as a human instrument in a research study (Lincoln & Guba, 1985) and their subjectivity and interpretation can affect the acceptability of research. Malterud (2002) proposes that qualitative inquiry should therefore consider the effects of the researcher's background and position on research processes and conclusions. Reflexivity is also one of Macfarlane's (2009) six core virtues for researching with integrity and aligned with my "way of being" as a researcher (see the next section on ethical considerations).

Holding the dual role of practitioner (teacher) and researcher, I was acutely aware of the potential intersubjective dynamics at play, both in terms of my background as a former employee of the case study and in terms of my current role and perspectives as a mindfulness teacher. Either of these could influence my inquiry, interactions with participants, interpretations, and findings (MORGAN, 2014). Indeed, mindfulness researchers often are also mindfulness practitioners or teachers and it is important to acknowledge the potential for confirmation bias (Jamieson & Tuckey, 2017; Lomas, Medina, Ivtzan, Rupprecht, Hart, et al., 2017) as well as to not overstate my case as a mindfulness teacher. A multi-disciplinary team of researchers would

reduce this bias but was not within the scope of this research thesis. A reflexive practice was therefore considered an integral part of establishing rigour and transparency within this research. A framework for reflective practice by Alvesson and Sköldberg (2017) was loosely used to frame my critical reflective thinking during each study. A reflexive journal recorded the methodological decisions as well as personal reflections around values and integrity as a researcher. This enabled the researcher to be aware of any personal assumptions which may be affecting data analysis or interpretations.

3.5 Ethical considerations

3.5.1. Integrity as a Practitioner-Researcher

There can be barriers to cultivating sufficient rapport and empathy with a group to enable research to be conducted. Given my access to the organisation, rapport already existed with the Board of Directors (i.e., for buy-in to the research project) however this did not extend to the current shopfloor population, the majority of whom had not met me. The recruitment process therefore for store participants had no threat of bias, and any bias was mitigated by providing confidentiality to those who volunteered to take part in the study.

Macfarlane's six core virtues of a researcher were mentioned in the above section on reflexivity. The other five virtues are 1. *courage, 2.*

respectfulness, 3. resoluteness, 4. sincerity, and *5. humility*. Recognising these virtues within my intentions as a researcher, each of these played a role in my behaviour. For example, *courage* in terms of engaging in this project knowing that the barriers to employees embracing mindfulness in the workplace were likely to be high, *resoluteness* in seeing it as my duty and responsibility to complete the work to a high standard, and *sincerity* in terms of presenting the data as a true representation of the participants.

3.5.2 Ethical Approval and Informed Consent

Each study underwent an ethical approval procedure by two independent members of the Moray House School of Education Sport Ethics Committee. This involved a comprehensive review of the intended methodology and data collection procedures as well as the Participant Information Sheet and Consent.

3.5.3 Anonymity and Confidentiality

As was made explicit in the Participant Information Sheets and Consent Forms for each study, participation was voluntary and participants who consented could withdraw at any stage of the research. It was also made clear that the data collected would be presented anonymously in the write up and if used for academic presentation or publication processes.

3.5.4 Mindfulness teaching and ethical considerations

In line with the ethical principles of mindfulness teaching, recruitment needed to be voluntary, i.e., self-selecting(Baer & Nagy, 2017). How to recruit ethically was given reflection, in terms of what to tell the participants. Even though it was not an RCT, it was decided not to reveal what was being measured (e.g., adaptive performance) but to explain that it was a mindfulness-based programme that may help employees navigate working in a busy environment. It did not however precise how it worked and what was being measured.

3.6 Introducing the thesis structure

At the beginning of this PhD project, I set out to adapt an MBSR programme to a retail setting, which involved scoping, designing, implementing and evaluating the retail adapted MBP. The process resulted in the emergence of a practical three-part framework for adapting MBPS. Below is a visual outline of the framework to help provide a map and logic for the thesis structure (see Figure 3.1 below).

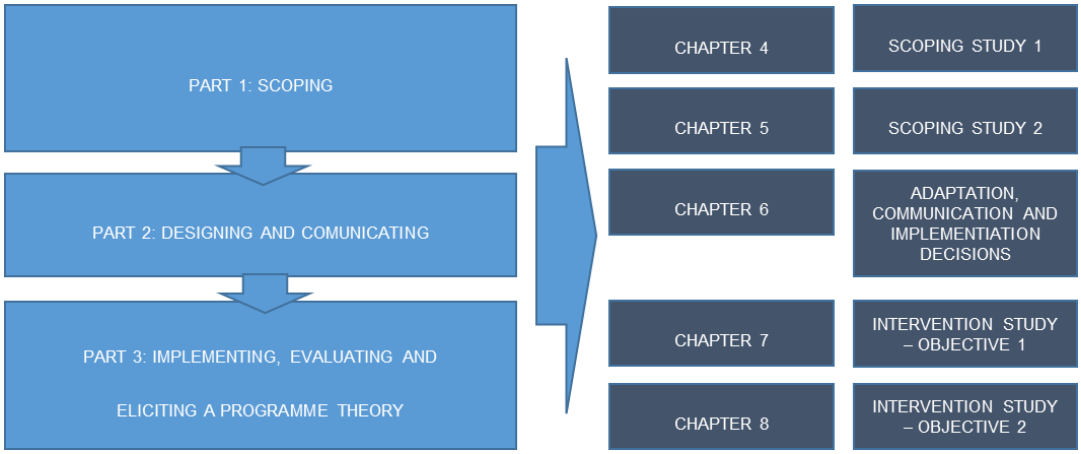


Figure 3.1 Thesis structure, underpinned by an emerging 3-part framework

Chapters 4 and 5 (Scoping studies 1 and 2) are part of “Part 1: Scoping”. The findings from these scoping studies inform “Part 2: Designing Communicating” (Chapter 6). Chapters 7 and 8 consist of the Intervention study which is “Part 3: Implementing, evaluating and eliciting a programme theory”. This study has been spread over two chapters due to the volume of data involved. The three-part adaptation framework will be referred to when linking the chapters together, with the aim of building an exemplification of this 3-part process.

The Figure 3.2 below illustrates that the next chapter (Chapter 4) addresses the first of two scoping studies.

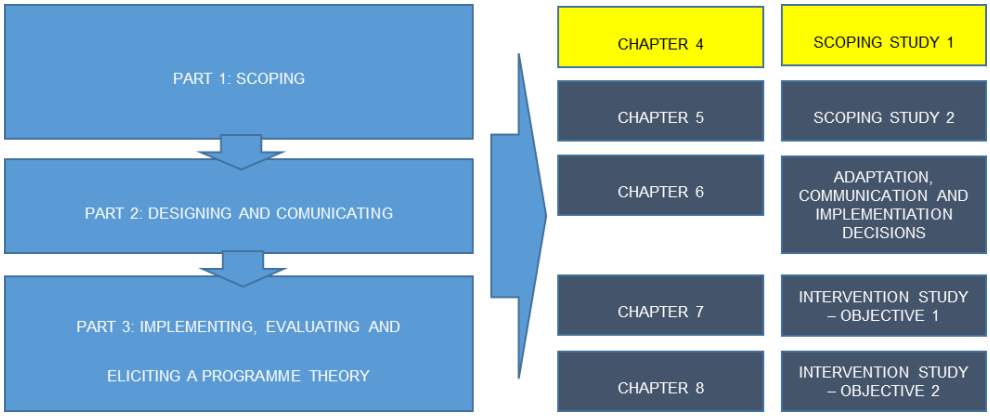


Figure 3.2 Highlighting the focus of Chapter 4

Chapter 4 Scoping: Identifying the desired employee behaviour outcomes

4.1 Introduction

This first scoping study aimed to clarify the desired employee behaviour outcomes. In doing so, it would be possible to see if an adapted mindfulness-based programme might be an appropriate intervention and also whether other interventions may already exist that could be used as an alternative (Loucks et al., 2022).

As explained in the Introduction (Chapter 1), the case study organisation's transformation into an omni channel retailer, meant they wished to support their employees to develop their ability to adapt to these structural changes and fast-moving consumer demand changes, quickly and skilfully. This was thus a focus line of inquiry in Study 1.

Whilst it was out with the scope of this thesis to explore at length, it was considered important to understand the aetiology of the desired employee behaviour outcome (Loucks et al., 2022), i.e., the determinants of the adaptive behaviour. This helps explain the rationale behind inquiry into the working environment as well as employee behaviour. Inquiry into the working environment was important firstly because human behaviour is thought to be a function not only of an individual's characteristics but also of the

environment (Lewis, 1936). Indeed, Johns (2001) proposes that the working environment plays a role in shaping employee behaviour.

Secondly, it was important to understand any situational constraints (e.g., *workload and opportunity to practice, opportunity to use skills)* that could influence the effectiveness of a programme and the training transfer (Salas, Weaver, et al., 2012). Furthermore, understanding and making the organisation aware of these constraints could help to clarify the programme's boundaries (i.e., what the programme is responsible for achieving).

Thirdly, knowing the organisation's wider strategic objectives would ensure that the training objectives could be aligned with these. Strategic alignment is thought to increase the likelihood of good sign up, enable employee engagement, reduce the possibility of unintended side effects and reduce the likelihood that it becomes a time- or person-limited project (von Thiele Schwarz et al., 2021).

In terms of considering the aetiology of employee adaptability, the adaptive performance literature (e.g., Jundt et al., 2015; Park et al., 2020) suggests individual and environmental (job, group and organisation-related) factors as determinants of individual adaptive performance, as can be seen in Figure 4.1. There is yet to be any empirical literature on the antecedents of adaptive performance specific to omni-channel retail workers, and so this study provides a first insight into this.

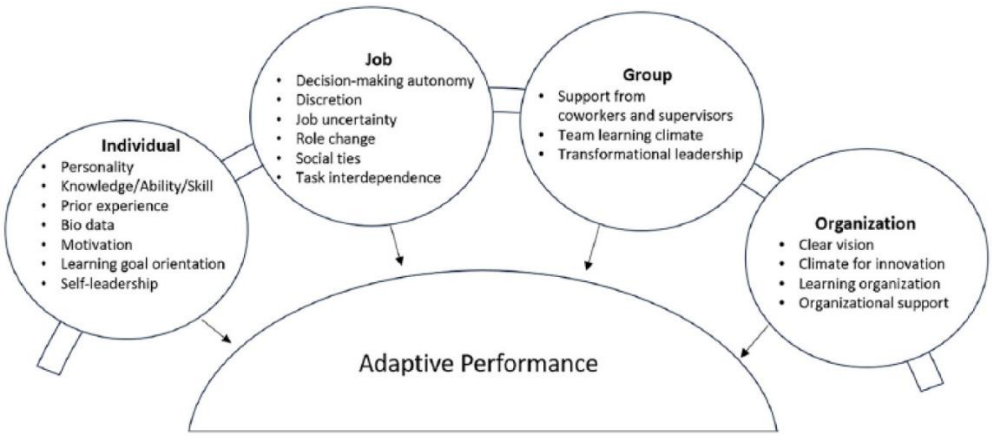


Figure 4.1 Antecedents of employee adaptive performance (Park et al., 2020)

In terms of desired employee behaviour outcomes, words used in company documentation and in conversation with the HR Director described how the organisation wanted employees to be "*quicker to react and adapt*", "*less resistant to change"*, to *"dare more"* and to *"be the change",* ideas that have been described in the literature as "change-oriented" behaviours (Ghitulescu, 2013). In terms of working environment, company documentation cited a working environment of "*freedom and responsibility*", "*self-managing*", "*flat hierarchy*" and "*a network way of working*", which also features in organisational behaviour literature (Schell & Bischof, 2022).

Whilst the organisation's perspective was understood in terms of the desired programme outcomes, the employees' perspective was missing.

Step 3 of the adaptation process proposed by Loucks et al. (2022) refers to generating and developing ideas for the necessary adaptations with key stakeholders that understand the context. In line with this and the researcher's socially constructed ontological position, it was considered important to understand the employees' perception of the actual and ideal employee behaviours and working environment in case there are differences. For example, it might be that the working environment described by the organisation might not be the reality being lived by the employees or there may be other behaviours that the employee considers important for this work setting. This scoping study therefore addresses the employee perceptions.

4.2 Aims and Objectives

To support the scoping of an adapted MBP for the case study organisation, the overarching aim of this study was to understand the employees' perspective on (a) the employee behaviours and (b) the environmental conditions required to thrive in this working environment. It also aimed to gather information on the current behaviours and working context.

The behaviour-related objectives were (1) to capture current (self-reported) levels of individual adaptive performance, (2) to identify the behaviours perceived necessary to thrive in the working environment and (3) to capture current mindfulness levels (given the likelihood of an MBP being implemented, it seemed useful to capture this). The environment-related

objectives were (1) to capture employees' perceptions of their working environment in terms of leadership, organisation and learning climate and (2) to identify ideal environmental conditions for employees to be able to thrive in the working environment.

4.3 Methods

4.3.1 Study Design

A survey design was selected because it is a cost-effective and efficient way for a MBP teacher to be able to profile a given employee population. It therefore allowed the researcher to reach as many of the case study workforce as possible and thus increase the possibility of an adequate response rate. The low-cost and ease of administration was also favourable given the financial and time constraints of the PhD project. These advantages outweighed the limitations of self-report surveys (e.g., response bias). This will be explored further in the limitations section.

4.3.2 Participants

Table 4.1 presents an overview of the survey participants and displays the extent to which the response sample is representative of the organization. It indicates a slight gender bias with more females answering the survey, an under-representation of those between 0 and 1 year in the company and an

over-representation of those with more than 5 years' experience. There is also a bias of nationality, with more British nationality responses than is representative. 283 participants took part out of a total workforce of 1804, meaning 15.6% of the population took part.

Variables	Categories	Survey Sample	Whole Organization
Sex	Male	43.82%	58.52%
	Female	56.18%	41.48%
Length of Service	0- 3months	10.3%	50.26%
	3-12 months	14.2%	
	1-5 years	45.9%	43.53%
	5+Years	29.5%	6.21%
Business Unit	Store	74%	73.18%
	Support Services	22%	7.33%
	Warehouse	4%	19.48%
Nationality	British	69.53%	40.62%
	Irish	0.36%	0.33%
	French	5.73%	5.75%
	Spanish	9.68%	12.81%
	Italian	5.73%	5.61%
	Polish	2.87%	5.94%
	Belgian	0.72%	0.13%
	Romania	0.72%	6.80%
	Hungary	0.36%	1.65%
	India	1.08%	0.33%
	Portugal	1.43%	2.84%
	Citizen of the world	0.36%	0.00%
	Bulgaria	0.36%	0.92%
	Columbia	0.72%	0.20%
	Lithuania	0.36%	2.18%
Contract	Permanent	95.41%	95.97%
	Temporary	4.24%	4.03%

Table 4.1 Demographic profile of online survey sample compared to the organisation

4.3.3 Measures

The survey contained a mix of self-report questionnaires and open text response questions to allow the participants to freely express themselves.

The online survey can be found in Appendix A. Consideration was given to the appropriate length and structure of the survey. Given the busy nature of the retail working environment, it was important the survey duration did not exceed 10 minutes. The survey was structured to keep the attention of the participant (e.g., through alternating the Likert scale questionnaires and open response questions). Three Likert scale questionnaires were used in this survey: (1) Environmental Factors questions, (2) Five Facets of Mindfulness Questionnaire, and (3) Individual Adaptive Performance Questionnaire. Each one will now be addressed in turn.

Environmental Factors Questions

Considering the environmental antecedents of individual adaptive performance (Jundt et al., 2015; Park et al., 2020), it was considered important to capture information on leadership, organisational structure and learning climate. An existing psychometrically reliable questionnaire that covered all these points was not found. Therefore, a questionnaire was constructed with the dimensions and questions adapted from a mix of

existing organizational culture scales such as a Learning Organisation Questionnaire (Marsick & Watkins, 2003), the Team Climate Inventory Short Version (Anderson & West, 1996) and the Scale of Perceived Support for Innovation (Siegel & Kaemmerer, 1978). A 5-point Likert Scale was used (*1= never or very rarely true, 2= rarely true, 3= sometimes true, 4= often true, 5 = very often or always true*).

The reliability of the questionnaire was checked during data analysis using Cronbach's Alpha values. In brief, the scores were 0.78 for leadership, 0.88 for learning climate, and 0.26 for organisational structure. Whilst there is debate surrounding the 0.7 cut-off of Cronbach's Alpha (Lance et al., 2006), it is generally considered that a score of 0.7+ indicates a high internal consistency between scale items (Kline, 2005). Therefore, the scores for leadership and learning climate were found to be reliable but the score for organisational structure was not considered reliable. The scores for the sub-scales of leadership and learning climate were therefore considered in more detail, than that of organisational structure.

The Five Facets of Mindfulness Questionnaire

In line with the review of mindfulness measures in the thesis methodology chapter (Chapter 3), the short version of the Five Facets of Mindfulness Questionnaire (Baer et al., 2012) was selected to measure participant trait mindfulness. This shorter version demonstrated acceptable internal

consistency (alpha = 0.8 to 0.85). A Likert scale of 1 (*never or very rarely true)* to 5 (*very often or always true*) was used.

The 5 facets of the FFMQ are "*Observing*" - noticing or attending to internal feelings, thoughts, and environmental simulation, "*Describing*" - labelling feelings, thoughts and experiences with words, "*Acting with awareness*" - attending to what is happening in the present moment, "*Non-judging of Inner Experience*" - taking a non-evaluative view of internal thoughts and feelings and "*Non-reactivity to Inner Experience*" - allowing emotions and thoughts to come and go, rather than interfere.

Individual Adaptive Performance

To gain information on individual adaptive performance, the Individual Adaptive Performance scale (Charbonnier-Voirin & Roussel, 2012) was chosen. Based on Pulakos et al. (2000) taxonomy, the scale contains five dimensions: *creativity* – the ability to find solutions or new approaches for complex or previously unknown problems; *reactivity to change in the face of emergencies or unexpected circumstances* – the ability to manage priorities and adapt to new work situations, *interpersonal adaptability* – ability to adjust interpersonal style to work effectively with different others , *training and learning* – the tendency to initiate action to promote personal development , *managing stress* - ability to maintain composure and channel own or team's stress. The Individual Adaptive Performance scale also contained the

psychometric qualities to support reliability, internal validity, and convergent validity (Charbonnier-Voirin & Roussel, 2012).

Other scales were considered, including the 55-item I-ADAPT scale (Ployhart & Bliese, 2006), the 132-item Job Adaptability Inventory (Pulakos et al., 2000), Psychological Flexibility (Ben-Itzhak et al., 2014) and the AAQ-11 Acceptance and Action Questionnaire (Bond et al., 2013) but were either considered too long to be time-efficient and keep the attention of the participants or not specific enough to the workplace.

4.3.4 Procedure

Prior to the online survey distribution, ethical approval was sought and obtained from the University of Edinburgh's Moray House School of Education and Sport ethics committee (see Appendix A).

The online survey was piloted with two employees. This piloting allowed the questions to be tested for comprehension issues and for flow of the questionnaire in terms of question order and respondent interest. Given the international diversity of the workforce, the researcher was careful to choose one employee where English was not their first language and one where it was. Given the diversity of roles, one pilot participant came from the support office environment and one from the store environment. No changes were

deemed necessary to the wording of the questionnaires, which meant the exact wording could be retained.

All members of the case study's workforce were invited via email to participate in the survey and were sent an information sheet about the research study (see Appendix B). The HR department provided the researcher with access to the internal email system. The employees were invited to take part in the survey during their working hours at their place of work (store, office, logistics centre) and on the organisation's computers or laptops. They were permitted to carry it out away from the shopfloor if required.

The survey was delivered using the online survey provider Jisc Online Surveys. GDPR compliant, this software was chosen thanks to its free provision by the University of Edinburgh and due to its ease of use both in terms of administering the survey and the capacity to transfer results efficiently into Excel or SPPS. It also allowed respondents to resume the survey when convenient, in the likely case they needed to pause to answer customer enquiries. The participants were given a window of two weeks to complete the survey, with reminders after one week and two days before the deadline for completion.

To obtain written informed consent, the first part of the online survey was a consent form. To minimise response bias, and in particular social desirability responding, it was explicitly expressed that the survey was not an assessment and participants were encouraged to answer honestly. The

participants were purposefully not informed of the exact research objectives. They were informed that it was part of a research study on working in a fast-paced environment and that the information given would help to inform the design of a programme for employee development. To ensure anonymity, the demographics section was not specific enough to be able to identify participants. For example, they were not required to identify their role or geographical location.

4.3.5 Data Analysis

Quantitative Analysis of self-report questionnaire scores

The self-report questionnaire data was analysed using SPSS (Version 19). Several checks and procedures were made during data analysis to ensure appropriate analysis was completed. Firstly, the distribution of scores were visually inspected, the skewness levels considered, and a Shapiro Wilks test was computed to determine whether parametric or non-parametric tests were needed. For all factors of all three self-report questionnaires, the data and bell curves presented a moderate negative skew and the Shapiro Wilks test results computed as $p < 0.5$. Thus, the data was not normally distributed and this, together with the ordinal nature of Likert scale data, violated basic assumptions of parametric testing. Whilst acknowledging that non-parametric tests can have a lower chance of detecting an effect, it was decided to carry out non-parametric tests. The consistent negative skew was reflected upon

and considered perhaps due to respondents giving socially desirable responses.

Mann-Whitney U tests were carried out on the scores to identify any significant differences between variables, (e.g., differing scores depending on gender, business unit). No significant differences were found between variables and so analysis presented is that of the whole dataset.

Content analysis of open-ended data

Treated hermeneutically, the open response data was firstly read and reread. A systematic procedure was followed to enhance rigour: (1) initial coding, (2) characteristic searching and defining, (3) category grouping and defining and (4) member-checking for credibility (Oleinik, 2011) The aim of the procedure was to discover meaningful patterns in the data. Each step of the systematic procedure will now be briefly outlined.

During step 1, the data was broken down into codes, with each code conveying an important element of data and considered relevant to answering the research question. During step 2, clusters of codes were developed by reorganising the codes into defined groups. During step 3, the cluster of codes were then grouped into broader categories. This was an iterative and inductive process with several cycles of categories being split, regrouped, and collapsed until all cluster of codes were placed in categories. To support understanding and increase clarity, the cluster of codes were

given general definitions. Definitions were created by considering Cambridge dictionary definitions and adapting them to be meaningful to the organisational context. The data was also treated statistically with frequency being noted.

A member-checking process was carried out during this process. At the category level, a fellow researcher was asked to code the data. Systematic discrepancies were discussed, and adjustments made to the character categories. The higher order themes developed were presented to the HR team to gather feedback. Further adjustments were made. Following this, 6 sample participants were asked to put the characteristics into the themes. Some final adjustments were made. Finally, another researcher was asked to code the characteristics into the final categories. An inter-coder consistency matrix was developed, and Cohen's Kappa was calculated using Excel. An inter-rater reliability score above 0.6 is considered moderate and above 0.8 is strong (McHugh, 2012). The inter-rater scores are considered moderate to strong.

4.4 Results

There were two main objectives. The first objective was to gather the employees' perspective on (a) their current levels of individual adaptive performance and mindfulness and (b) employee characteristics that enable thriving in this working environment. The second objective was to capture the

employees' perspectives on (c) the current working environment and (d) the working environment that would allow them to thrive. The key findings from each objective will now be presented.

4.4.1 Employee behaviour-related findings

Individual Adaptive Performance Scores

Figure 4.2 presents the individual adaptive performance scores. The scores for all factors of individual adaptive performance were relatively high, generally ranging between *mildly agree* and *agree*. This could be indicative of a ceiling effect, which is important to consider.

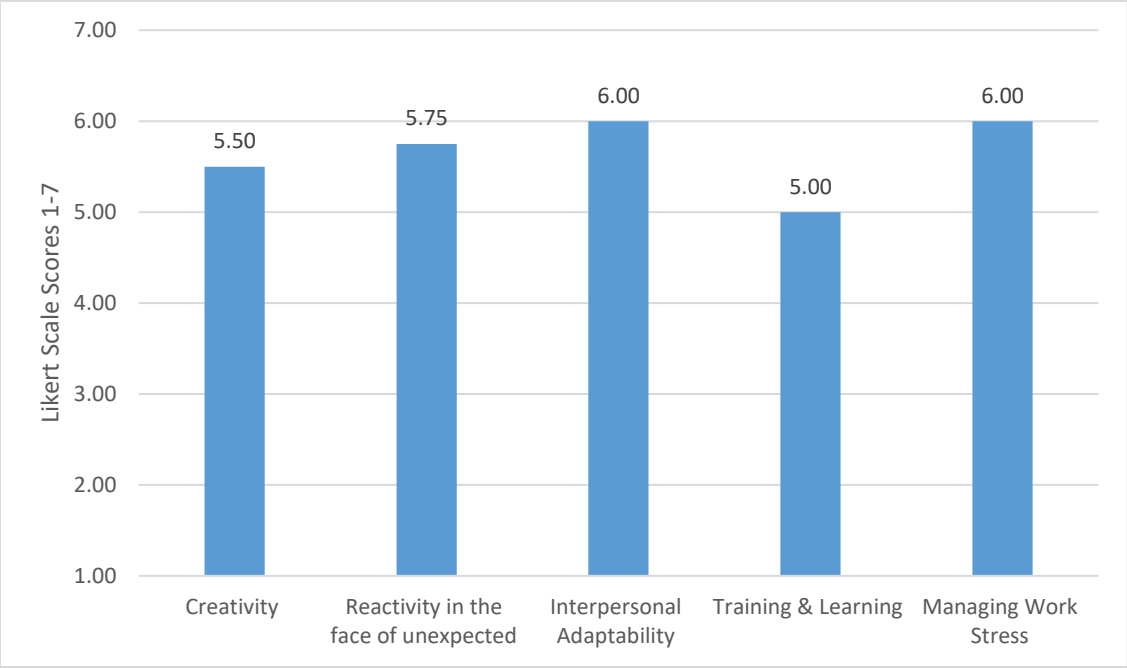


Figure 4.2 Factors of Individual Performance – Median scores (participant perspective)
1= Strongly disagree, 2= Disagree, 3= Mildly disagree, 4= Undecided, 5= Mildly agree, 6= Agree, 7= Strongly Agree

The lowest scores were in Training & Learning (Mdn = 5) and the statement with the lowest score (Mdn = 4) within this factor was "*I undergo training on a regular basis at or outside of work to keep my competencies up to date*".

Desirable employee characteristics for the working environment

These were the characteristics participants cited as being helpful for thriving in the fast-paced retail working environment. The categories of employee characteristics identified were *positive, proactive, driven, ethically responsible, agile, friendly, and organised.* Figure 4.3 provides a visual representation of the categories of characteristics, together with definitions of each category of characteristics.

Agile *a way of being which is open-minded, flexible, aware, explorative, patient, intelligent, creative*

Driven: *a way of being which is determined, ambitious, strong, disciplined, dedicated, motivated, focused*

Friendly: *a way of being which is warm and approachable, relaxed, empathetic, helpful, listens, is team-oriented and communicative*

Organized: *a way of being which is structured, systematic, able to prioritize and manage their time*

Proactive: *a way of being which initiates activity with autonomy; leads, is courageous, creates and enables situations rather than responds, entrepreneurial spirit*

Positive: *a way of being which is energetic, confident, calm positive, happy*

Ethically responsible: *a way of being which is responsible, honest, respectful, professional, and fair, trusting and rational*

Figure 4.3 Desirable employee characteristics (participant perspective)

The Five Facets of Mindfulness Scores

Overall, the scores of the five facets were favourable ranging between *sometimes true* and *often true*, as illustrated below in Figure 4.4. These findings suggest reasonably good levels of mindfulness amongst the employee population.

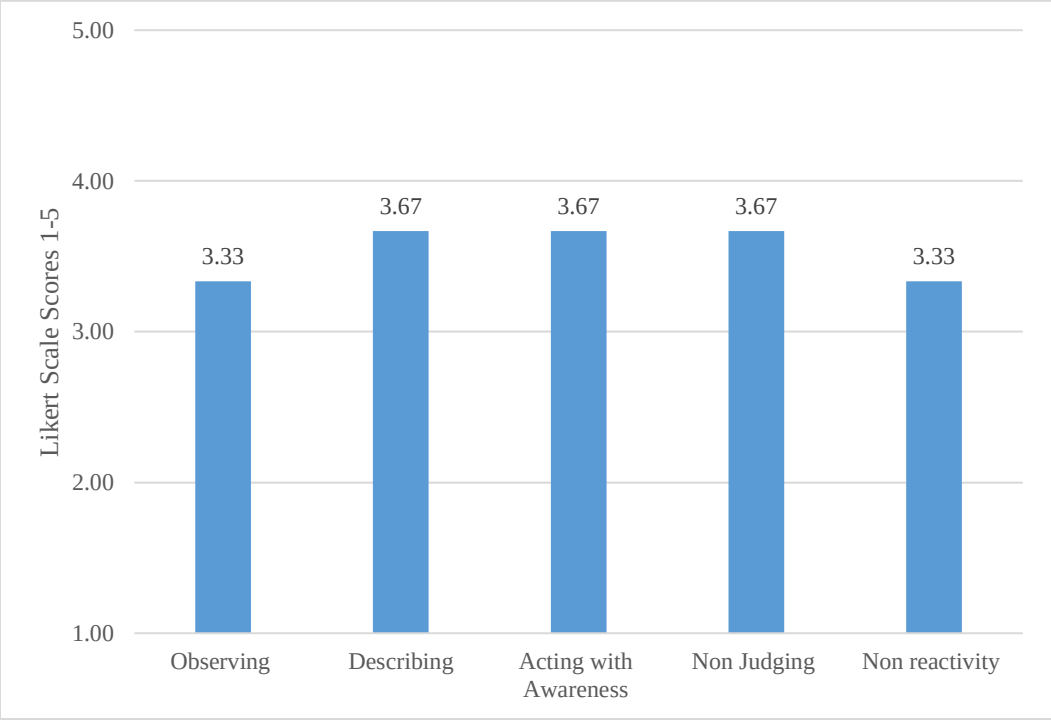


Figure 4.4 Five Facets of Mindfulness Median Scores
(1= never or very rarely true, 2= rarely true, 3= sometimes true, 4= often true, 5 = very often or always true)

In terms of scope for improvement, the lowest scores were for the facets *Observing* (*Mdn* = 3.33) and *Non-Reactivity (Mdn = 3.33).*

4.4.2 Environment- related findings

Environmental Factors Scores

The Environmental Factors questions were designed to assess employees' perceptions of the organisational structure, leadership and learning climate. The results are presented visually below in Figure 4.5.

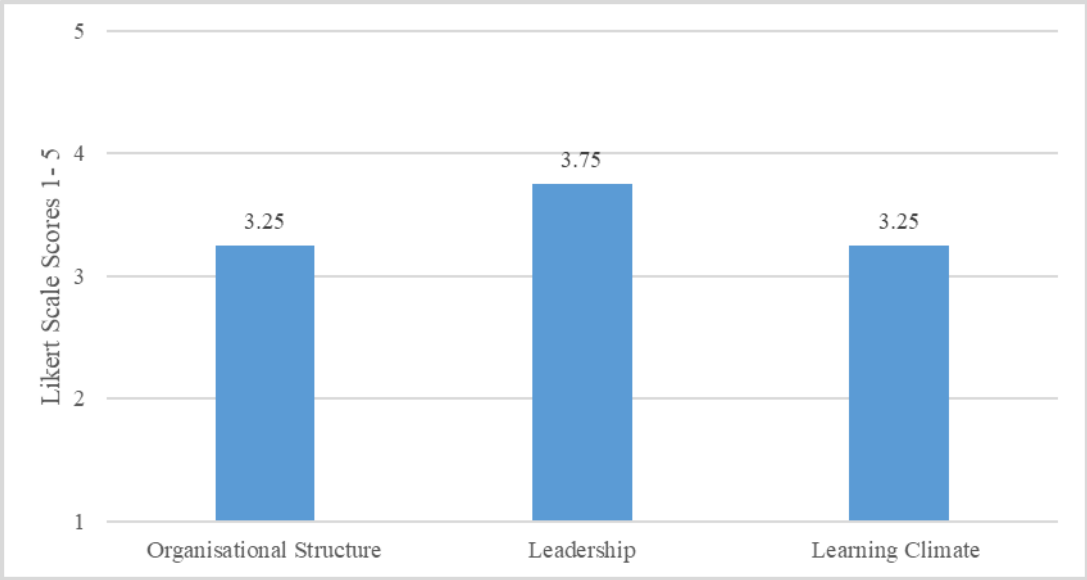


Figure 45 Environmental Factor Median Scores
1= Never or very rarely true, 2= rarely true, 3= sometimes trues, 4= often true, 5 = very often or always true.

The scores indicate employees have a reasonably positive perception of their working environment. The lack of reliability of the organisational structure dimension, as mentioned in the methodology section, meant that just the results of the individual statements were considered.

In terms of scope for improvement, the lowest scoring statements were part of the *learning climate* sub scale, for example: *"People are given time or resources to support learning and innovation*" and "*We can get information easily and quickly"* scored a median of 3. So, whilst generally the environmental factors indicated no major working environment challenges,

there is scope for the case study organisation to develop their learning climate.

Desirable Working Environment Conditions

These were the environmental conditions participants cited as enabling employees to thrive in the fast-paced retail working environment. Qualitative content analysis identified four main categories of environmental conditions: "*a collective environment*", "*a supportive environment*", "*a clear environment*" and "*an open environment*". There was a balanced prevalence of each of these categories. Figure 4.6 illustrates these and explains what is meant by each category.

Collective: *factors associated with teammate characteristics, teamwork, team relations, collaboration, an aligned purpose*

Supportive: *factors associated with accessibility of training, supportive behaviours from colleagues and managers, sufficient resources, recognition for work*

Clear: *factors associated with having a clear framework within which to work, clear communication, clear job responsibilities and career pathways, clear leadership and*

Open: *factors associated with empowering management (i.e., not micromanagement), psychological safety (no blame culture), freedom of decision-making, free speech, trust, transparency of information*

Figure 4.6 Participant Perspectives of desirable working environment conditions

The results indicate potentially important environmental determinants of individual adaptive performance for these employees. This will be discussed further in the discussion section.

4.5 Discussion

Whilst acknowledging the strengths and limitations of the study, this section interprets how the findings contribute to the existing literature. In light of the findings, it then considers the appropriateness of implementing an MBP and

discusses the implications of the findings on the design of an adapted MBP for the case study retail setting. It also highlights the broader implications on the process of adapting an MBP.

4.5.1 Interpretation of Key Findings

Employee behaviour-related findings

The Five Facets of Mindfulness scores indicated a moderate level of mindfulness which signalled some scope for more mindful behaviour the implementation on an adapted MBP. Possibly indicative of a fitting recruitment strategy and yet not necessarily reflective of the organisation's briefing, the individual adaptive performance scores were relatively high. Whilst there is the possibility of socially desirable responding by participants, it leads to a question mark on whether an MBP could affect large changes in these scores.

In terms of the employee characteristics or behaviours perceived to be desirable, employee perceptions included a wider range of characteristics or behaviours than the organisation's reported. Some reinforced the organisation's perspective, e.g., *proactive and agile.* It is possible that the other identified behaviours were perhaps less specific to the specifics of transforming into an omni channel retailer, and rather those behaviours required for retailing in general.

The leading category of *agile* features in the literature on organisational change , with proactive being a key element of "*change-oriented behaviour*" (Ghitulescu, 2013). It contained the dimension of openness, which is considered important in adaptivity (Griffin et al., 2010). The category *positive,* whilst perhaps not seen directly in the adaptive performance literature, contained the dimensions of *calm* and *happy* which may be a positive framing for the factor in the IAP scale related to resilience and stress resistance.

The category of *proactive* is also reinforces that proactivity is a key feature "*change-oriented behaviour*" (Ghitulescu, 2013). Proactive behaviour is described as self-directed action such as taking personal responsibility or personal initiative to bring about change themselves (Morrison & Phelps, 1999, Crant, 2000, Parker, Williams & Turner 2006). Indeed Shin and Kim (2015) talk of the increasing uncertainty and changes in a business setting requiring more employee proactivity. It is thought to be required with the increasingly self-managed teams and an autonomous working structures (e.g., Crant, 2000; Griffin et al., 2010).

In synthesis, some of the employee behaviours identified *(agile, proactive, positive)* are in line with the literature on behaviours required for organisational change. However, the study is a first contribution to the more specific area of omni channel retailing, which is yet to explore the employee skills and behaviours required. It is also the first study to consider adaptive performance in a retail environment.

Working environment-related findings

The relatively high scores on the Environmental Factors questions indicated that employees have a positive perception of their current working environment. The scores for learning climate were slightly lower which was in congruence with the lower scoring on the *training and learning* factor of the individual adaptive performance questionnaire.

Interestingly, the ideal working environment perceived by employees *(collective, supportive, clear, and open)* was different to the working environment described by the organisation, which rather talked of self-management and freedom and responsibility, where support and clarity are not always key characteristics. The employees perceptions are in line with the the antecedents of adaptive behaviour literature, which speaks of the importance of a clear vision, organisational support, and a learning organisation (Park et al., 2020). Chiaburu et al. (2013) also mention the importance of support from co-workers and supervisors. This is particularly relevant to a retail setting, where Boles et al. (2001) found that perceptions of work environment support were positively related to customer orientation.

This study therefore reinforces the importance of a supportive environment to enable employees to develop change-oriented behaviours.

4.5.2 Strengths and Limitations

Whilst providing a novel contribution to both the adaptive performance literature and omni channel retailing literature, the study has two main study design limitations to acknowledge. Firstly, the survey design offers breadth but not depth. Whilst it was deliberately chosen to capture an overview of employee perspectives in a time-efficient and cost-effective way, it does not allow for exploration of the meaning behind the scores. Practically speaking, whilst a survey is a good solution for obtaining “big picture” themes, one-to-one interviews with employees allow for a more nuanced understanding.

Secondly, the reliance on self-report measures means there could be response biases in form of halo effects, leniency effecting and timing effects. Some participants may have been reluctant to reveal their true feelings or responded in a socially desirable way.

4.5.3 Is an MBP appropriate?

In light of the organisation’s request and the employee findings, the question of whether a MBP is an appropriate intervention is then important to pose (Loucks et al., 2022).

The conceptual literature in mindfulness, points towards an MBP being a potentially useful intervention for change-oriented behaviour. For example, a favourable relationship between mindfulness with openness to change (e.g., Barner & Barner, 2011; Barner & Barner, 2013), cognitive flexibility (Moore &

Malinowski, 2009), openness to experience (e.g., Kaviani & Hatami, 2016; Langer & Moldoveanu, 2000b) and transformational change (Aviles & Dent, 2015) has been reported. There has also been an exploration of using mindfulness in VUCA environments (e.g.,Hall, 2018; Rees, 2017).

Furthermore, the additional employee behaviour of “friendly or “prosocial” behaviour has also been positively linked to mindfulness practice (Donald et al., 2019), and altruism (e.g.,Block-Lerner et al., 2007; Wallmark et al., 2013).

In summary, it was concluded that an MBP could be an appropriate intervention for developing employee change-oriented behaviours and that an in-depth exploration of the antecedents would enable a theory of change to be developed.

4.5.4 Implications for the design of an adapted MBP to the case study organisation

Understanding the desired outcomes of an MBP was a key objective of this study, so that the MBP content could be more explicitly adapted to the target outcomes. In addition to this, some of the findings were also considered important for potential programme format adaptations. For example, the lower scores on learning climate, accessibility of information, training and resources to support learning and innovation flag a potential barrier to MBP implementation, attendance, and effectiveness. This is particularly significant given the adaptive performance literature suggests a learning climate/organisation can be a key antecedent of individual adaptive performance.(e.g., Kanten et al., 2015; Park

& Park, 2019). This information will help to inform the design of the programme to make it as accessible as possible, which will be addressed further in the Designing and Communicating the Programme Chapter (Chapter 6).

4.5.4 Broader implications for the process of adapting MBPs

There are two broader implications that this study provides to the process of adapting an MBP.

Firstly this study highlights the value including a scoping exercise with the organisation when designing an adapted programme. It emphasises how a scoping exercise involving the perspective of the employees is beneficial to understand any behaviours (e.g., the importance of prosocial behaviour) and systemic issues (e.g., the accessibility of training) not fully understood or communicated by the organisation. By sharing the employee perspectives with the organisation, clear boundaries can be set about expectation of the programme objectives. For example, in this case, even if the MBP is effective in facilitating change-oriented behaviours, the learning climate of the organisation, unless changed, will likely also affect the level of training transfer to the workplace.

Secondly, it also points to the value of using mixed methods for data collection to obtain both a broad and nuanced understanding of the issues at play. In this case, relying on a survey alone, whilst useful for obtaining breadth, lacked in terms of understanding the meaning behind the data.

Having one to one interviews would allow a more nuanced understanding of the context.

4.6 Conclusions and next step

The study findings contribute to retail knowledge by providing case study findings on employee behaviours needed for today's retail environment (*proactive, positive, agile, ethically responsible, friendly, and driven*) as well as the environmental conditions (*open, clear, supportive, and team oriented*. However, more relevant to this case study, some of the environment findings have implications for the design of the adapted MBP (*the barrier of the learning climate and training accessibility*). More broadly, the case study contributes to knowledge on the MBP adaptation process by illustrating useful practices for scoping (getting the employees perspective and using mixed methods) stage.

The Figure 4.7 below illustrates that the next chapter (Chapter 5) addresses the next scoping study.

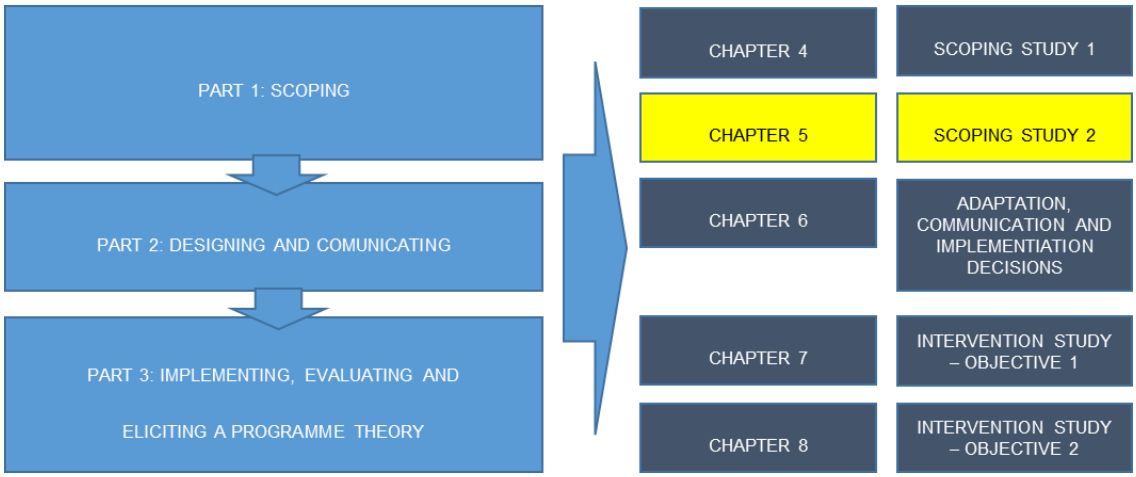


Figure 4.7 Scoping Study 2 – the next step

Chapter 5 Scoping: Understanding the facilitators and barriers to MBP implementation in case study organisation

5.1 Introduction

Whilst the first scoping study brought more clarity to the targeted outcomes of an MBP, it also provided some important information regarding the working environment, which could affect the implementation, participant engagement and experience effectiveness of an MBP. This identified a need to further understand what might affect implementation and effectiveness of an MBP in this retail setting. Indeed, Loucks et al. (2022) recommend as part of the adaptation process to gain knowledge on the organisation's delivery systems and settings and the culture, values and communication patterns of the target population.

There is literature exploring the barriers to mindfulness meditation practice (e.g., Cohen-Katz et al., 2005; Dix et al., 2021; Hoffmann et al., 2014; Hunt et al., 2020; Sears et al., 2011) and participant engagement in MBPS (e.g., Dobkin, 2011; Strauss et al., 2014; Wyatt et al., 2014). Existing MBP literature exploring implementation in the workplace, whilst limited, has found there to be both barriers and opportunities (e.g., Banerjee et al., 2017; Dix et al., 2021) To date, there are no studies have been conducted in a retail setting. However, the study by Banerjee et al. (2017) was with healthcare workers, whose work shares some similar characteristics with retail workers, e.g., hands-on, busy, and shift-work. In this study, participants found barriers

to be the long practices, not being comfortable being with negative thinking or becoming more aware of the self-critical nature of the mind. Opportunities however were the chance to learning stress reduction techniques, the shorter practices, and developing a sense of as agency over thought patterns. Participants in Dix et al. (2021) found it difficult to find time to practice and also spoke of the difference in culture between mindfulness and their organisation. Crane (2017) table below clearly illustrates the difference between the ethos of an MBP ethos and that of mainstream institutions. MBPs are focused on the *"being"* mode (e.g., they involve process and experiential learning) and workplaces tend to be more focused on the "*doing"* mode (e.g., they are goal- or outcome-oriented).

Table 5.1 Balancing fidelity to the ethos of MBPs and mainstream contexts (Crane, 2017)

Ethos with MBP pedagogy	Mainstream Institutional Ethos
Emphasis on process rather than outcome	Goal orientation Activity driven by targets Measuring outcomes routinely to check efficacy
Approaching internal and external experience non-judgmentally	Emphasis on judgment and “view”
Value placed on giving time and attention to the immediacy of the moment	Emphasis on efficiency and productivity
Emphasis on sensing experiencing	Emphasis on conceptualization

Given this literature, it is necessary to understand if there are participant-related and organisation-related challenges and opportunities with regards implementing the MBP in the retail setting. To do, so it was decided to inquire into employee perspectives both on (a) MBPs and (b) effective training in the retail setting to identify any barriers or opportunities and inform any format adaptations.

Step 4 of the adaptation process proposed by Loucks et al. (2022) refers to evaluating feasibility by interviewing people from the target population and setting. In line with this, and in line with rationale outlined in Study 1, the employees perspective was chosen to be the subject of study. Given the limiting survey design used in study 1, it was considered that qualitative data collection (i.e., interviews) would be the most useful inquiry method to gain a more thorough understanding of the issues at play. Indeed the training in organisations literature (e.g., von Thiele Schwarz et al., 2021) suggests that understanding how participants think, feel and act regarding training can helpful in identifying participants' training preferences and motivations. By eliciting mental models of effective and ineffective training for store employees, it was thought possible to better understand what the facilitators and barriers to MBP implementation and participant engagement in this environment might be. And that data would help inform decisions on the need for format adaptations.

5.2 Aims and Objectives

The aim of this study was help inform decisions on adapting the form of the MBP to the target population and setting. To do this it was important to (a) gain an appreciation of the employee perspectives on implementing a mindfulness-based programme to identify potential barriers and opportunities, and (b) to gain an understanding of what effective training

“looks like” for this population to identify opportunities for useful adaptations. The objectives were thus twofold: (1) to understand employee perspectives on implementing a mindfulness-based training and (2) to ascertain employee perspectives on effective training in the store working environment.

5.3 Methods

5.3.1 Study Design

In line with the approach outlined in the Methodology chapter (Chapter 3), a qualitative methodology was adopted using 13 semi-structured interviews to gain a more in depth understanding of participant perspectives. Following the first scoping study using an online survey offering breadth but not depth, interviews were chosen here to ensure more depth and that “whys and hows” were understood. To get a rapid picture of potential barriers to mindfulness, participants were also asked to complete a short survey on barriers to meditation practice for novices.

5.3.2 Participants

Given that 73% of the organisation’s employees work in the store, it was decided that the adapted MBP be designed for store employees. A store near to the researcher was selected for convenience and cost effectiveness.

Thirteen store employees (8 females, 5 males; M age = 23 years, range 18-26 years, mixed nationalities, median time working for organisation = 1.6 years) participated. The participants include a range of job roles: 1 Store Leader, 4 Department Managers and 7 Sports Advisors, 11 of whom had permanent contracts.

5.3.3 Measures

Semi-structured Interviews

One-to-one interviews were conducted with all participants. A semi-structured interview schedule was designed in line with recommendations (Page & Thelwell, 2013) and can be found in Appendix D The schedule had two parts; the first part exploring effective and ineffective training experiences for store employees and the second part seeking to understand the opportunities and barriers associated with introducing a mindfulness-based training programme. Each part began with broad open-ended and non-leading questions and then elaboration questions. Prompts and probes were used to elicit further details and examples as well as to attain resonance (DeJonckheere & Vaughn, 2019).

Determinants of Meditation Practice Inventory

To help understand the participant's relationship with mindfulness, the interviewee was asked to complete the Determinants of Meditation Practice Inventory (DMPI) at the beginning of each interview (see Appendix C). This

was to test a way of quickly capturing the barriers to mindfulness that may exist within the group.

The DMPI is an 11-item scale designed to assess perceived barriers to meditation for novice meditators (Rietschel, 2016). It has four factors: low perceived benefit, perceived inadequate knowledge, perceived pragmatic barriers, and perceived sociocultural conflict. Since its use here, this scale has been further revised to a 12-item scale, known as *DMPI-Reviewed* (Hunt et al., 2020). This scale was chosen instead of Williams et al. (2011), 17-point unidimensional scale because it had undergone factor analysis, suggesting stronger validity.

5.3.4 Procedure

The participants were recruited via an email communication to the whole store population inviting employees to take part. Written consent was obtained from each participant (see Appendix B). A pilot interview was carried out with a store employee to check comprehension of the interview questions. No amendments were deemed necessary.

The interviews were carried out face to face in a meeting room within the workplace. The room was private and comfortable. Interview length varied between 31 minutes and 45 minutes. The interviewer asked for the permission of interviewees to record the interviews using a handheld voice

machine. The DPMI survey was printed out so that participants could answer with a pen at the start of the interview.

The recordings were transcribed verbatim by a professional transcription service. The accuracy of the transcriptions was checked by comparing the recording with the transcript. To ensure accuracy and resonance with their experiences, participants were sent a copy of the transcript to allow member-checking (Lincoln, 1986) to take place. No amendments were deemed necessary, and the interview data was inputted to NVivo Version 11.0.

5.3.5 Data Analysis

In line with the qualitative approach outlined in the Methodology Chapter (Chapter 3), a thematic analysis (Braun and Clarke, 2006) was used to derive central themes from the interview data. This involved working systematically with the data to identify interesting and repeated patterns. Braun and Clarke's (2006) six steps were used*: 1. Familiarisation of transcripts, 2. Forming initial codes, 2. Searching for themes, 3. Reviewing themes, 5. Defining and naming themes and 6. Producing reports.* Once the initial coding was completed, common patterns were identified across the codes, which resulted in emerging themes. The merging and differentiating of these themes then enabled the identification of overarching themes.

To establish rigour, a fellow researcher was given a list of quotations and a list of themes and asked to allocate the quotations to the themes. An interrater agreement of 87% (the percentage agreement between the two raters) was achieved (Joffe & Yardley, 2003). This individual acted as a "*critical friend*", challenging and discussing the differences (Smith & McGannon, 2018).

5.4 Results

To recap, the aim of the study was to gather employee perspectives on implementing a *mindfulness*-based training and to capture employee perspectives on effective training for store employees.

5.4.1 Employee Perspectives on implementing an MBP

Interview data

Four themes were identified: *lack of understanding of mindfulness, a cynical or macho attitude, a questioning of its relevance*, and *low self-efficacy in meditation*. Table 5.2 presents the codes and themes and after, each theme will be illustrated with quotes.

Table 5.2 Perspectives on implementing a MBP in the store: Themes and Codes

Theme	**Code**
Lack of understanding of mindfulness	Common misconceptions
	Not knowing the benefits
Cynical or Macho attitude	Cynical or Macho attitude
Questioning relevance	Questioning how it relates to work
Low self-efficacy for meditation practice	View as difficult or scary
	Influenced by previous experiences
	Not knowing how and need for support

Lack of understanding of mindfulness

Many participants voiced misconceptions, with an example here by Participant 7 who said:

> *"So, the people are just sitting around in a big group, and they are just talking among themselves or sometimes singing, and they are doing nothing actually just relaxing." (P7)*

Other misconceptions expressed were the idea that mindfulness is about reaching a special state or emptying the mind:

> *"Sometimes I just sit there, and the thoughts come and it's just a waste of time because I don't get into that mindfulness state at all, even if it is mindfulness that I'm doing" (P1)*

> *or "For me, it's just like you just switch off your brain" (P7).*

In terms of not knowing the benefits, about half of the participants understood it was related to becoming calmer, as illustrated by this example:

“Being in the moment, don’t be in the past, don’t be in the future, be in the moment, now. Because being in the moment here, you really can handle all that is happening now”. (P4)

An attitude of cynicism

An attitude of cynicism was explored by some participants. One participant spoke of how others may view it cynically:

“I can imagine two or three people, if I propose this as an extra training, the eyes would roll and they would be like "The TGs (aisle ends) are empty and we're training on mindfulness?!" (P1)

or

“And when the guy started talking about clearing your mind and all this stuff, people started laughing...” (P8)

Questioning the relevance

In terms questioning the relevance, several participants spoke of needing to understand how it was relevant to their work. For example, *“Not sure how this can help in the store environment…How is this going to help me in the store?” (P3)*

And

“Again, maybe it’s that lack of connection with how it will help me at work. I need to be able to see the connection with, unfortunately, the end results. So how does this make me better in my job?” (P1)

or

“For me concentrating on nothing for example…I do not get the point of doing nothing!” (P2)

Low self-efficacy in mindfulness practice

Some participants spoke of not knowing how to meditate, unsure if they "do" mindfulness correctly. and feel a need for support:

> *"It's quite difficult, sometimes you should be thinking but you are thinking 'I'm doing this wrong. This isn't the way'" (P4),*

or

> *"Yeah, if it is something you don't know and if something is wrong at the end… you are 'how do I do it? I will need to help to do it!'" (P5).*

Participant 12 referred to this as a barrier to starting*: "Because I don't know how to do it, I have never done it" (P12).* For Participant 3, a teacher was required*: "Learning even with a book is complicated. And I tried with app." (P3)*

Determinants of Meditation Practice Inventory Scores

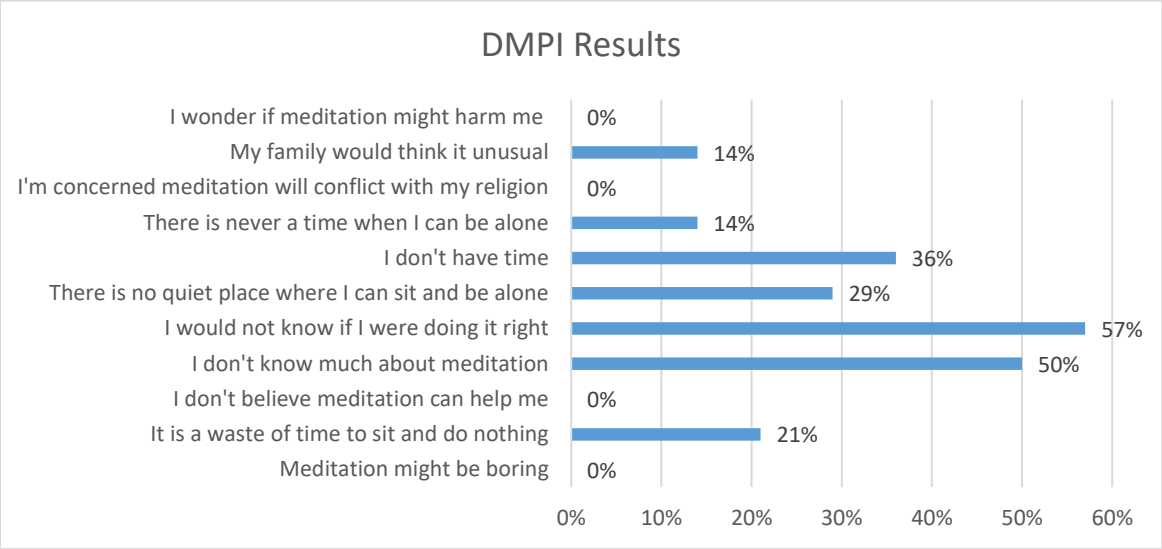


Figure 5.1 Determinants of Meditation Practice Inventory Scores
Percentage of combined responses "agree" and "strongly agree" to each item on the Determinants of Meditation Practice Inventory scale.

The inventory results in Figure 5.1 display the percentage of participants that responded either "*Agree*" or "*Strongly Agree*" to each statement on the Inventory. Over half the participants said they agreed with the statement "*I would not know if I were doing it right"* and "*I don't know much about meditation".* One third of participants agreed with *"I don't have time"* or "T*here is not quiet place where I can sit and be alone".* Also noteworthy are the statements they didn't agree or strongly disagree with such as "*I'm concerned meditation will conflict with my religion*", "*Meditation might be boring*", and "*I don't believe meditation can help me*", and "*I wonder if meditation might harm me".*

5.4.2 Effective store training for store employees

Inductive thematic analysis resulted in 6 overarching themes, 17 sub-themes 27 codes. These are illustrated in Table 5.3 below.

Table 5.3 Ingredients for effective training for store employees - themes and sub-themes

Theme	Sub-theme	Code
Accessible	Location	Non store environment to be able to disconnect/reflect
		Need for no/ short distance travel
	Time	Not enough time is a barrier
		Need for planned and allocated time "off the shopfloor"
		Need for flexibility of "when"
Stimulating	Variety	Individual, pairs & group exercises
		Blended learning: digital, video, games
	Fun	Sport
		Competitive games
	An engaging teacher	teacher interaction
Teacher-led	Ensures accountability	ineffectiveness of E-learning
		teacher presence
	Provides safe environment	non-judgemental attitude
		facilitator of safe space
Experiential	Programme length	not a one off
		improves employee confidence
	Opportunity for safe practice	in class and between class
		freedom to try
	Feedback	motivating feedback
	reflective inquiry	reflective inquiry
Collective	peer learning and sharing	peer feedback
	value of different perspectives	opens mind
	sense of community	relationship building
		new people
Useful	relevant to organisation purpose	understand benefits for company, job and team
	facilitates professional growth	understand benefits for self
	sense of tangible progress	quick wins for motivation to come back

The overarching themes identified to ensure an engaging training were *accessible, stimulating, teacher-led, experiential, collective,* and *useful.* Each will be briefly explained and illustrated in turn.

Accessible training

The sub-themes of accessible training were l*ocation* and *time*. In the sub-theme of *location*, participants voiced the need for the training location to be close to the place of work for convenience: "*maybe in a store where I don't have to travel far"* (P1). Some participants expressed that a *"non-store location"* was better for focus and connecting with others: Participant 13's words illustrated this with:

> *"The big thing I liked (about the previous training) is that were together outside of the store, we could talk and express ourselves a bit better. I think things like that really helped to develop relationships between everyone. It would be quite hard to do that in a store" (P13).*

In terms of the sub-theme of *time*, all participants expressed not having enough time for training, as illustrated in this quote: *"*

> *Sometimes what we are missing…it that we just don't have time for everything…..Managers they don't give you - or they don't have time to give you to carry out trainings." (P6).*

Related to this, several participants specified the need for the "training" or "non-shopfloor" hours to be specified on their timetable or else they would be pulled back on to the shopfloor: "*there needs to be some sort of allocated time where you can do self-development (P1).* Participants also talked about the difficulty of getting everyone together for group training as they work different shifts: *"Yeah. This is the problem. Because everybody has different timetables. It's not like an office, Monday to Friday. So, it's difficult" (P5).*

Stimulating training

The sub-themes of *stimulating* training were *variety, fun*, and *an engaging teacher*. Most participants spoke of training being engaging when there was variety during training through blended learning or a mix of individual and group activities:

> *"We did a lot of exercises, saw a lot of videos, spoke about those videos and really shared a lot" (P12), "there were lots of games, lots of group work, individual reflections" (P10). "It has to be a mix of everything to be enjoyable" (P3).*

Most participants expressed that *fun* was an important ingredient of effective training. Fun involved either sport: *"And we went for a run, so we incorporated sport" (P10)* or competitive games, for example: *"We had some games, we were playing with our phones, with tennis balls." (P14)* or *"we had some missions with small groups, and we had to find the solution for problems…it was a game" (P3).* The evidence based MBPs do not typically contain elements of fun although an attitude of playfulness is encouraged.

With regards to *engaging teaching,* many participants talked of the importance of interaction, rather than a one way download of information. Participant 14 expressed: *"The teacher is very important, you could see the positivity, he was engaged, he knew what he was doing, and he had experience" (P14).* Reaffirming this idea, some participants spoke about their experience of teachers who did not interact*:*

> *"It felt like they were just talking at you all the time. It's hard to pay attention when it's just a lot of talking." (P13) and "There is nothing more sapping than when someone just literally goes through line by line this is what you should know" (P1).*

This theme also emerged when talking about E-learnings: *"Things get boring easily because there is no interaction" (P12).*

Teacher-led training

The sub themes of teacher-led training were ensuring *accountability* and *providing a safe environment*. In terms of *accountability*, this was made clear when participants spoke about the lack of accountability in E-learning:

> *"With E-learning…there are all the notifications on the phone…" I thought "No, too busy for that just now" and put it down. It is easy to ignore something like that whereas when you have an appointment with someone, it's more of a face-to-face accountability" (P11)*

> *or* "if you don't want to do it, you just don't do it" (P12).

In terms of *safe environment*, participants appreciated neutral and non-judgmental teachers:

> *"If you said something wrong, you felt there was nothing wrong, you were just here to learn. You didn't feel if you spoke you might say something wrong or be looked at strangely" (P4)*

Experiential training

The sub-themes of experiential training *are programme length, opportunity for safe practice, opportunity for feedback, opportunity for reflection/inquiry*. With regards to the length of the training, participants expressed the wish for a programme over a longer duration because this allows time for practice, feedback, and reflection:

> *"Rather than a 'one-off' …. a long-term kind of plan of action… or over a few consecutive days, there is like a bit of a build-up, and it gives people time to reflect and then digest and then there's another one…. short sharp bursts" (P10).*

One participant commented: *"with a one-off session once it had gone it was almost like it was out of your head and then forgotten about a few weeks later…." (P12)*

The opportunity to practice safely was expressed several times, for example:

> *"The ability to practice trial and error. To be able to try something with complete freedom, you are not going to be judged on what you say." (P8) or "The freedom to be able to try something new and if it doesn't work, then have at least learned from it" (P4).*

Several participants mentioned specifically the importance of feedback. For example, the benefit of positive feedback is illustrated in this quote:

> *"Getting positive feedback. So having people say 'yes, that was really effective', I felt great the next day, like little things like that made me be like, ok, I am getting quite good at this. Let's go back and learn some more" (P11).*

The opportunity to reflect was considered important: *"So, I think it is important building in that constant reflection for the individual… 'What have I taken away from the session?" (P10)* so that they linked it to their role: *"Because it made us think about what we were doing, why we are doing it, it made us more engaged". (P9)*.

Collective training

The sub-themes of collective training were *peer learning and sharing, the value of different perspectives*, and *a sense of community*.

The effectiveness of peer learning and sharing was expressed by several participants, for example:

> *"Yeah, so it was some sort of feedback from someone who's not an expert but knows a bit about what they're talking about which is kind of, I don't know, it feels like a different kind of learning, a little bit less formal but obviously you had tutors going around kind of giving you advice and answering questions if you needed it" (P11).*

Hearing different perspectives was considered useful by many participants, as illustrated here by Participant 9:

> *"It had a huge impact because of different personalities…it opened my mind more than if am only one-on-one with someone" (P9) or "and then different personalities because I know that I'm completely different with my colleagues. So, each one has a different personality, and I think that's good for this kind of resources" (P2).*

Some participants also mentioned the sense of community that collective programmes can build, for example:

> *"It was a smaller group we were able to go into more depth about things and the connections you make with those teammates are just like long-lasting and when you see them in work, outside of those trainings, you know them quite well as a person. So, it's that sense of community and network as well" (P10.)*

Useful training

In useful training, there are three sub-themes: *relevant to the organisation and job purpose*, *facilitates professional growth,* and *having a sense of tangible progress.*

Several participants spoke of the need to understand how it was relevant to the organisation and their job:

> *"If I could see it as being beneficial, I knew what was being taught or what is on the agenda, that would encourage me" (P4) or "saying, 'these things are important in Decathlon, explain how this can help with this, which things are important to you in your job.'" (P11)*

Training which facilitates professional development was considered appealing to employees: *"I want to learn as much as possible to grow maybe in the future" (P2).* Another participant mentioned the importance of communicating this: *"to outline the purpose and the benefits of how it can help individuals to grow" (P10).*

The importance of "felt" or "tangible" progress during the training was also considered important for some participants. For participant 13, seeing improvement was motivating: *"it's like seeing improvements, it was really motivating and really made me want to keep at it*" (P13). This was re-affirmed by another participant with: "*If I don't see an instant benefit then I would be like… 'Oh well, I might not go next week then'" (*P10). Or Participant 1:

> *"If I am going every month and I don't see some sort of growth, I could start to get a bit like 'Well what's the point?' whereas if you can see those small incremental changes, it gives you the motivation to carry on" (P1)*

5.5 Discussion

Whilst acknowledging the strengths and limitations of the study, this section interprets how the findings contribute to the existing literature. Considering the findings, it then draws out the opportunities and barriers for MBP implementation and discusses the implications on the design of the adapted

MBP. It concludes by highlighting the broader implications on the process of adapting an MBP.

5.5.1 Interpretation of key findings

Employee perspectives on implementing an MBP

The identified themes regarding implementing an MBP (lack of knowledge/understanding of mindfulness, a cynical view of mindfulness, a questioning of the relevance of mindfulness, low self-efficacy in mindfulness practice, and perceived lack of time) were primarily barriers to implementation rather than opportunities. This mirrors the existing literature which predominantly speaks to the barriers to mindfulness practice and MBP engagement (e.g., Cohen-Katz et al., 2005; Dix et al., 2021; Hoffmann et al., 2014; Hunt et al., 2020; Sears et al., 2011). For example, the theme lack of knowledge/understanding of mindfulness echoes the category perceived inadequate knowledge (Hunt et al., 2020), the identified attitude of cynicism is in line with Hunt et al., (2020) perceived socio-cultural perception and a questioning of the relevance of mindfulness also shares similarities with the category of low perceived benefits (Hunt et al., 2020). Low self-efficacy for meditation practice where participants questioned their know-how regarding meditation as well as the fear of it being difficult also features in the existing literature (Lomas et al., 2015) where participants spoke of the fear of contacting painful internal states and described meditation was a difficult skill

to learn and practice. So, this study strengthens existing findings in this area and offers the first study conducted in a retail setting.

Each of these identified themes have implications for the design of an MBP in the setting, which will be addressed in section 5.5.3.

Employee Perspectives on ingredients for effective store training

The characteristics identified for an effective training for store employees (*accessible, stimulating, teacher-led, experiential, collective and useful),* reinforce the existing literature on training in organisations. For example, the preference for *teacher-led* training reflects findings that instructor-led classroom training remains the most popular training method despite the advance of technology and web-based learning (Tews & Noe, 2019). The reasons cited (a teacher made them feel more accountable, ensured a safe training environment and made the training more stimulating) are also congruent with existing literature that suggests the teacher not only facilitates knowledge but also promotes collaboration and facilitates a safe learning space for practice and feedback (e.g., Bedwell & Salas, 2008; Noe & Colquitt, 2002; Towler & Dipboye, 2001).

The preference for *experientia*l training supports Kolb's learning cycle (Kolb, 1984) and one of Knowles' principles of adult learning that experience

provides the basis for learning (Lippitt et al., 1984). The preference for *collective* training, fits with the literature suggesting that social learning, learner-learner interaction and peer support are all enablers of training transfer (e.g., Kraiger, 2008; Moore, 1989; Noe & Colquitt, 2002).

The importance of *stimulating training* for the employees (involving variety, fun, games and an engaging teacher) is consistent with the training literature proposing that designing fun elements into training and offering stimulating delivery can facilitate learning outcomes, promote informal learning, and increase learning transfer intention (e.g., Baid & Lambert, 2010; Lee et al., 2022; Rangel et al., 2015; Tews et al., 2013).

The need for *accessible training* in terms of flexibility of location, time and duration has parallels with the barrier of needing shopfloor cover as cited in in Hart et al. (2007). The need for the training to be *useful* is closely aligned with one of Knowles principles of adult learning, that *"adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life*" (Lippitt et al., 1984). Indeed, Noe and Colquitt (2002) found that training was more meaningful to employees if it was deemed useful to them.

So, this study strengthens existing empirical findings in training in organisation literature by offering an exploration of the training characteristics helpful in a retail setting. Each characteristics also hold implications for the effective design of an MBP in this area and this will be explored in section 5.5.3.

5.5.2 Strengths and Limitations

Whilst the study strengthens the existing literature base MBP implementation barriers (e.g.,Cohen-Katz et al., 2005; Horst et al., 2013; Lomas et al., 2015; Sears et al., 2011) and offers the first study specific to implementation in a retail setting, there are limitations to consider.

The value of the DMPI scale is, in retrospect, questionable. The same information was collected with richer exemplification in the qualitative data, albeit through a more time-consuming process. In real-world settings, a teacher may not have time to interview this number of employees and so the measure was considered a useful way of efficiently collecting views on mindfulness. Using Russell et al. (2018) 10 statements on the general facts and misconceptions of mindfulness (found after the study) would have been useful. More information could help to design the start of the mindfulness programme and / or any pre-programme information sessions.

5.5.3 Identifying the barriers and opportunities and their implications for MBP adaptation

The employee perspectives on MBPs and what constitutes effective training in their working environment enabled the barriers and opportunities to MBP implementation to be identified.

Identified Barriers

Potential barriers identified via study 1 and study 2 were either participant-related (e.g., *lack of knowledge/understanding of mindfulness and its relevance, a cynical attitude of mindfulness, a questioning of the relevance of mindfulness, low self-efficacy in mindfulness practice, and perceived lack of time)* or organisation-related (e.g., low accessibility to training and resources, lack of time available for training). These barriers help make informed decisions on programme adaptation.

Firstly, we know that prior knowledge has been found to be a main antecedent to participants participation (Banerjee et al., 2017). Sears et al. (2011) found that participants that questioned the efficacy of mindfulness was linked to difficulty in finding motivation outside of class to practice. This makes sense as the theory of reasoned action and planned behaviour (Ajzen, 1991) posits that the perceived benefit is an important facilitator in adopting new health behaviours. Therefore, it would be advisable to educate and communicate to participants on what mindfulness is and how and why

mindfulness is relevant to and can be useful to their role, either prior to or at the start of a programme.

Secondly, self-efficacy has been theorised to be a predictor of adopting new health behaviours (Bandura, 2004; Strecher et al., 1986) and so a programme support system for participants mindfulness practice could be useful.

Thirdly, given the cynical attitude expressed by some, it would be wise to use language that aligns with the organisational language, thinking and strategy (Dix et al., 2021).

Fourthly, given that time and resources for training seems limited, it would be wise to consider different formats such as online or hybrid training delivery, and or shorter programmes and exercises.

The decisions made will be outlined in the Designing the Programme chapter (Chapter 6).

Identified Opportunities

Opportunities identified included using, where possible, the identified successful training intervention criteria (*accessible, stimulating, teacher-led, experiential, collective and useful*).

Some of the effective training characteristics identified (*teacher-led, experiential,* and *collective)* are characteristics shared by MBPs. There is thus

an opportunity to emphasise these popular characteristics of the training when communicating the MBP to the target employees.

The characteristic that stands out in this setting is that of stimulating training involving fun and competition. It may be advantageous to incorporate some games into the programme, to make the training more attractive and maintain participant engagement.

The decisions made will be outlined in the Designing the Programme chapter (Chapter 6).

5.5.4 Broader implications for the process of adapting MBPS

More broadly speaking, this study illustrates the importance of gathering qualitative data during the scoping stage of adaptation. It allows for a more nuanced understanding of the target population and the working environment, which can help the teacher to map and circumnavigate potential barriers to implementation and participant engagement.

5.6 Conclusions and Next Steps

This study established the opportunities and barriers associated with implementing a MBP, which then helped to inform the decisions on design and communication of the adapted MBP. More broadly, the study reinforces

the importance of using qualitative data collection during the scoping stage of adapting an MBP.

With the scoping completed, the next step was to design and communicate the adapted MBP. Figure 5.2 below illustrates that the next chapter (Chapter 6) addresses the design and communication step of the adaptation process.

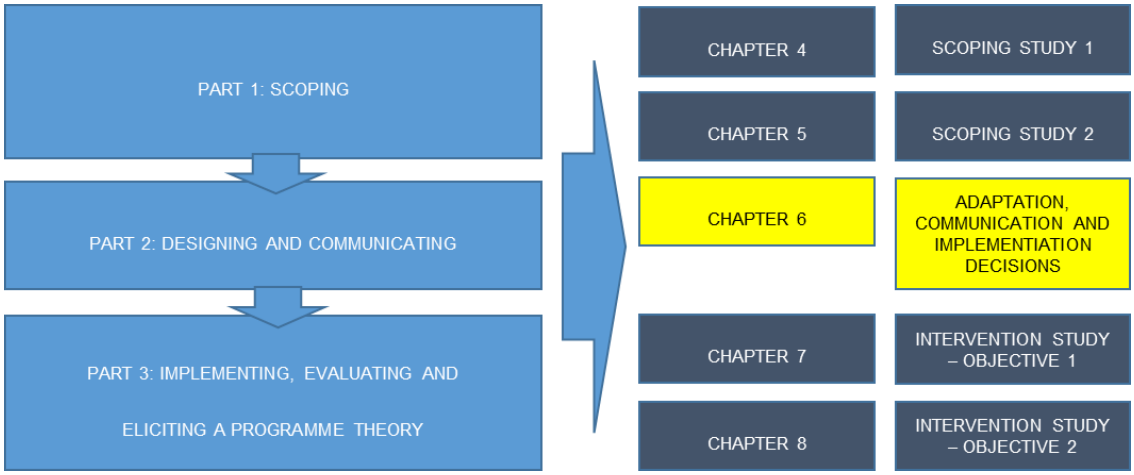


Figure 5.2 Designing the adapted programmme – the next step

Chapter 6 Designing and implementing the Programme

Influenced by the existing mindfulness adaptation literature (Crane et al., 2017), intervention design and implementation science (e.g., Funnell & Rogers, 2011; Wight et al., 2014), the researcher undertook three main steps when designing the adapted programme. These are synthesised and presented in Table 6.1 below.

Table 6.1 Steps followed to design the adapted programme

Step 1: Decide which factors are fixed
Step 2: Make adaptations to suit the population and setting
Step 3: Position and implement skilfully

At this stage of the research, Loucks et al. (2022) paper on adapting MBPs was yet to be published and so was not used to guide the adaptation process. Given its relevance, it has however been included in the writing up of this thesis. As mentioned in the critical review of the literature (Chapter 2), there is certain knowledge which is important to hold when adapting an MBP: (1) the essential ingredients of an MBP, (2) the aetiology of target health outcomes, (3) existing interventions that may work for the population and context (4) the organisation's delivery systems and settings and (5) the culture, values and communication patterns of the target population (Loucks et al., 2022). The paper by Loucks et al., (2022) also offers systematic reflective questioning which can be seen in Table 6.2 below.

Table 6.2 Reflective Questions proposed by Loucks et al., (2022)

1. Why is adaptation needed? Does a current MBP not meet the population being served?
2. Does the theoretical premise underpinning mainstream MBPs extend to this population? If not, what theoretical adaptation is needed?
3. Does the existing MBP extend to the population and context you are considering? If not, what adaptation (weft) is needed?
4. Do the benefits of an adaptation outweigh the time and costs involved to all in research and implementation? Is the adaptation likely to be sustainable and create long-term value?
5. Is there already a good approach for this issue in the population/context?

Whilst their reflective questions and proposed steps offer a more in depth and comprehensive process than that undertaken by the researcher, similarities can be seen between the adaptation process followed by the researcher and those offered by Loucks. For example, both refer to the importance of understanding the essential ingredients of an MBP as a first step.

6.1 Step 1: Decide which factors are fixed

Fixed factors were considered those elements of the programme that were integral to protecting the integrity of an MBP.

As well as considering the fixed and flexible ingredients listed by Crane et al., (2017), the idea of an explicit and implicit curriculum (Crane & Griffith, 2021)

was also considered. The explicit curriculum refers to the programme's content: the mindfulness skills and attitudes which enable the participant to become aware of and recognise their habitual or automatic reactions and to choose a more skilful or conscious response. The implicit curriculum encompasses the learning atmosphere of the programme, often referred to as the "friendly spirit" in which the programme is delivered (Crane & Griffith, 2021). This is shaped by the different relationships in the training space, (e.g., *between individual participants, between the individual and the group, and, between the teacher and the group) (McCown, Reibel, & Micozzi, 2016).* However, Santorelli (2014) emphasises the role of the teacher, describing them as instrumental in "stewarding" this friendly atmosphere through their embodiment of the mindfulness skills and attitudes, custodianship of an ethical space and the skilful navigation of group processes (Santorelli, 2014).

The researcher considered that both the explicit and implicit elements needed to be part of the adapted programme and so were essentially "fixed" factors. These fixed factors are synthesised in Figure 6.1 below.

EXPLICIT CURRICULUM:

3 Mindfulness skills

Present Moment focus: refers to an individual's ability to intentionally re-focus their attention to the present moment when they notice unintentional mind-wandering e.g., rumination or planning, or operating in automatic pilot.

Decentering: refers to the ability of an individual to observe their physical, emotional, or cognitive reactions to events (Teper et al., 2013)

Approach Orientation: refers to individual's ability to react with curiosity, equanimity and compassion (Feldman & Kuyken, 2011) towards experience (even difficult ones), rather than avoidance.

9 Mindfulness attitudes

N*on-judging*: the possibility of observing experience without commentary, which in turn allows more space for kindness, compassion, and empathy.

Patience: an understanding that things unfold in their own time and so allowing this rather than trying to control a situation for a particular outcome.

Beginners Mind: being willing to see things with a fresh "child-like" perspective - rather than through the filter of preconceived ideas or opinions. Consequently, an individual can be more receptive to new or different possibilities.

Trust: developing belief in what you intuitively feel.

Non-striving: being with an experience however it is, rather than becoming attached to a specific outcome and striving towards it.

Acceptance: a willingness to see things just as they are, rather than resisting or wanting things to be different. Such discrepancy-based monitoring and can often become a source of stress and anxiety.

Letting Go: letting things be as they are without needing to control them i.e., not holding on to pleasant experiences or pushing away unpleasant experiences.

Gratitude: an attitude of deliberately bring attention to the good things that exist in life. This acts to reduce the negativity bias in the brain.

Generosity: bringing generous attention to others.

IMPLICIT CURRICULUM

Teacher-led

Meditation Practice: Participants are progressively taught four formal meditation practices: *the body scan, mindfulness movement, sitting meditation and short informal practices.*

> These allow participants to practice (1*) paying attention, (2) connecting to direct experience of sensing, (3) choosing to shift attention, (4) developing awareness of pleasant unpleasant and neutral, (5) "know-how" of using attention to work skilfully with the natural tendencies of the mind,* and *(6) learning how to build stability and calm* (McCown, Reibel, Micozzi, et al., 2016).

Group Inquiry and Dialogue: After guided meditation practice, an inquiry-based and dialogic style is employed by the teacher to allow the discovery and expression of participants' personal learnings (Santorelli p.52, McGown). It is designed where possible to maximise the relational aspect of the group and how it can contribute to allowing the core themes to emerge.

Psychoeducation: The teacher provides short relevant teachings during the sessions e.g., an explanation of the stress reaction cycle and fight, flight, freeze, tend or befriend. The teacher may use poems, stories, images or metaphors to introduce discussion or consolidate learning.

Self-led

Formal daily Practice: Participants are asked to practice the formal meditations daily.

Informal daily Practice: Participants are asked to carry out informal practices during their everyday life e.g., mindful eating or walking. They are encouraged to notice and reflect on patterns of relating to experience and how it effects their everyday.

Figure 6.1 Researcher's fixed factors

6.2 Step 2: Make adaptations to suit the population and setting

The findings from the scoping studies informed any adaptation decisions. Being in the early stages of teaching mindfulness made me cautious to make any big adaptations and I erred towards following the MBSR curriculum as much as possible. Small adaptations were made to content and format and will now be outlined.

6.2.1 Content adaptation

Following the scoping exercise, the researcher shared the results on identified behaviours with the organisation. It was agreed to focus the programme on adaptive and proactive behaviour, referred to by Ghitulescu (2013) as “change-oriented” behaviours. Rather than a change in the content of the psychoeducation of the MBSR curriculum, it remained the same. However, the language used was adapted to make it relevant to the workplace, as can be seen in the title of each week’s class in Figure 6.2 below. Adaptive behaviour at work is addressed in Weeks 5 and 6 and proactive behaviour is introduced in Week 3 through “intention and action” and Week 8 in terms of proactive wellbeing.

	MBSR Programme
Pre course	Orientation Session
Week 1	INTRODUCING MINDFULNESS
Week 2	PERCEPTION
Week 3	MINDFULNESS OF THE BODY AND THE BREATH IN MOVEMENT
Week 4	LEARNING ABOUT OUR PATTERNS OF REACTIVITY TO STRESS
Week 5	COPING WITH STRESS: USING MINDFULNESS TO RESPONSE INSTEAD OF REACT
Week 6	STRESSFUL COMMUNICATIONS AND INTERPERSONAL MINDFULNESS
	All day retreat
Week 7	LIFE-STYLE CHOICES - HOW CAN I BEST TAKE CARE OF MYSELF?
Week 8	KEEPING YOUR MINDFULNESS ALIVE

	Adapted Programme
Pre course	Orientation Session
Week 1	DEVELOPING & SUSTAINING FOCUS AMIDST THE BUSYNESS
Week 2	DEVELOPING CURIOSITY FOR OUR BODY'S SIGNALS & DIFFERENCE BETWEEN PERCEPTION AND REALITY
Week 3	DEVELOPING AWARENESS OF INTENTION AND ACTION THROUGH THE BODY
Week 4	NOTICING OUR BEHAVIOUR DURING "GOOD" DAYS AT WORK
Week 5	NOTICING OUR BEHAVIOUR DURING "CHALLENGING" DAYS AT WORK
Week 6	DEVELOPING WAYS OF BEING WITH UNCERTAINTY & CHANGE IN THE WORKPLACE
Week 7	DEVELOPING OUR INTERPERSONAL PRESENCE AT WORK
Week 8	BEING PROACTIVE IN OUR CHOICES AND OUR WELLBEING

Figure 6.2 Comparison of weekly content.

Language and examples aligned with the organisations culture of sport (e.g., the programme was titled "Mind-Athletics for wellbeing and performance") was used to aid relevance for the population. Use of testimonials of well-known sport personalities and their mindfulness practice (e.g., Tom Daly testimonial) were integrated. Links were also made to the current context of transformational change to an omnichannel organisation. By doing this, the programme was more aligned to the culture, language and strategy of the organisation (e.g.,Dix et al., 2021; von Thiele Schwarz et al., 2021).

The learning insights from an MBP are emergent for each participant, often through the teacher's inquiry of their experience during a meditation. Therefore, the inquiry questions and journal reflection questions were adapted to encourage the participants to consider the relevance at work amidst change and uncertainty. Example inquiry questions were *"How can this be helpful at work?" "Where could I practice this at work?".*

6.2.2 Format adaptation

Informed by the scoping studies which highlighted the possible barriers and opportunities to MBP implementation, several format adaptations were made. Figure 6.3 compare the weekly format of the MBSR with the adapted programme.

	TEACHING	HOME PRACTICE
Pre course	1.5 hours	
Week 1	3h face to face	Formal: 45 minutes Informal: 5-15 minutes
Week 2	2.5h face to face	Formal: 45 minutes Informal: 5-15 minutes
Week 3	2.5h face to face	Formal: 45 minutes Informal: 5-15 minutes
Week 4	2.5h face to face	Formal: 45 minutes Informal: 5-15 minutes
Week 5	2.5h face to face	Formal: 45 minutes Informal: 5-15 minutes
Week 6	2.5h face to face	Formal: 45 minutes Informal: 5-15 minutes
	7h face to face	
Week 7	2.5h face to face	Formal: 45 minutes Informal: 5-15 minutes
Week 8	3.5h face to face	Formal: 45 minutes Informal: 5-15 minutes

	TEACHING	HOME PRACTICE
Pre course	30 minutes	
Week 1	2h face to face class, on site	Formal: 5 minutes + Informal: 5-15 minutes
Week 2	2h face to face class, on site	Formal: 5 minutes + Informal: 5-15 minutes
Week 3	3h face to face class, **off site**	Formal: 10 minutes + Informal: 5-15 minutes
Week 4	2 X 30 minute online video	Formal: 10 minutes + Informal: 5-15 minutes
Week 5	2 X 30 minute online video	Formal: 10 minutes + Informal: 5-15 minutes
Week 6	3h face to face class, **off site**	Formal: 10 minutes + Informal: 5-15 minutes
Week 7	2h face to face class, on site	Formal: 10 minutes + Informal: 5-15 minutes
Week 8	2h face to face class, on site	You choose

Figure 6.3 Comparison of weekly format between MBSR and adapted programme

The adaptation decisions together with their rationale have been summarised in Table 6.3 below.

Table 6.3 Format Adaptations and Rationale

Format Adaptation Decisions	**Rationale**
Create a WhatsApp group for sharing and peer support on practice experiences	To address barrier of low self-efficacy in mindfulness practice and increase adoption of the new health habit of mindfulness practice (Bandura, 2004)
Inviting short daily practices of 5 minutes, instead of 20–40-minute practices. Invitation rather than "must do".	To address shortage of perceived lack of time. It was also considered that "small wins" was more likely to encourage participation than put people off if they were not achieving the long home practices. By making it an invitation was designed to give the participants more choice and autonomy, hoping to increase motivation.
A hybrid programme was offered with Week 4 and 5 being online self-led modules.	To address shortage of resources and accessibility to training. The self-led modules were designed to give more flexibility for learning and avoid shopfloor cover issues. Technology has increasingly been used as means to make training more accessible to employees (Salas & Cannon-Bowers, 2001; Salas, Tannenbaum, et al., 2012)
The weekly sessions were either 2 hours or 3 hours, and the online modules were split into 30-minute blocks twice a week.	To address shortage of resources and accessibility to training.
The removal of the one-day retreat	To address shortage of resources and accessibility to training.

6.3 Step 3: Position and implement skilfully

In line with training in organisation literature (Sitzmann et al., 2009), thought was given to how to best communicate the programme. Sitzmann et al. (2008) propose that trainees with unmet expectations demonstrate lower post training commitment, self-efficacy, and motivation. Emphasis was therefore given to a clear positioning of the programme and being clear on what to expect and not to expect (e.g., being clear about the level of commitment involved and that it was a mindfulness-based programme).

Implementation Decisions	Rationale
Implement an information session and two taster sessions designed to educate on mindfulness and its relevance. Benefits that it can bring to work, and sport were offered (e.g., focus at training sessions, reduced performance anxiety in competition)	To address identified barrier of lack of knowledge/ understanding of mindfulness and its relevance To address identified barrier of a cynical attitude towards mindfulness
Attend and present the programme at the weekly manager meeting before store-wide communication of the programme	To involve the management team and ensure they understood the rationale for the programme. Smith-Jentsch et al. (2001) found that one misdirected comment by a team leader can affect how effective a training programme is. Piggybacking on what is already in place, and already done, can help integrate the intervention with organisational practices process and mindsets (Hilman & Kaliappen, 2014). Smith-Jentsch et al. (2001)
Create a WhatsApp group for sharing and peer support on practice experiences	To address barrier of low self-efficacy in mindfulness practice and increase adoption of the new health habit of mindfulness practice (Bandura, 2004)

Table 6.4 Implementation Decisions and Rationale

6.4 Conclusions and next steps

Once the programme was designed, the next step was to evaluate an implemented MBP. Considering the large amount of data generated, it was decided to present this third study over two chapters (Chapters 7 and 8). Chapter 7 presents and discusses the findings associated with the first objective (an *outcomes evaluation)* and Chapter 8 presents and discusses the study findings associated with the second objective (a *process evaluation).*

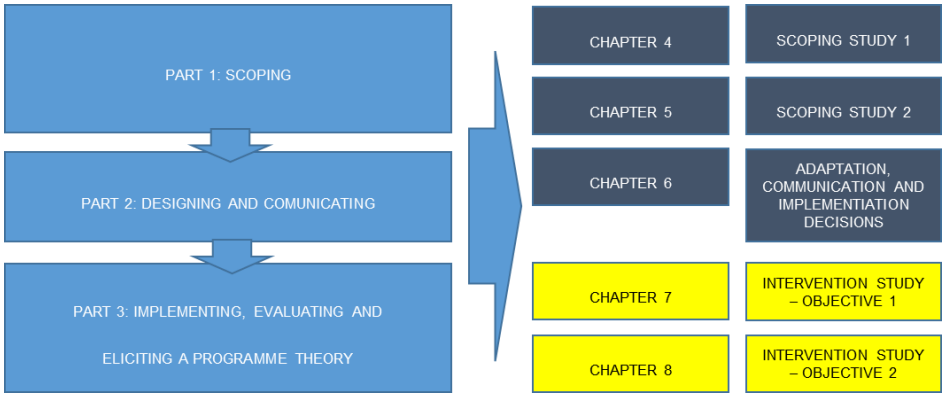


Figure 6.5 – Intervention and Evaluating – the next steps

Chapter 7 Evaluating the MBP outcomes

7.1 Introduction

Once the adapted MBP is designed, the next step in Loucks et al. (2022) adaptation process is to "*pilot a clinical trial, with meaningful measures of acceptability, feasibility harms, adverse events mechanisms and effectiveness, using a meaningful comparison group"* (p.10). Similarly, during this adaptation process, the next step was to design an intervention study within the scope of the PhD project with an aim to evaluate the MBP.

Evaluation can serve numerous purposes (Nickols, 2005) and so an important first step is to establish the purpose of an evaluation. With a view to advancing the literature in workplace MBPS, this study's purpose was to evaluate (1) outcomes and (2) the process, (i.e., how the MBP works).

This chapter (Chapter 7) includes the study's overall aims, objectives, and methods. It then presents and discusses the findings associated with the first objective (an *outcomes evaluation)*. Chapter 8 presents and discusses the study findings associated with the second objective (a *process evaluation).*

Kirkpatrick's four levels of learning evaluation in organisations (Kirkpatrick & Kirkpatrick, 2006) is a comprehensive form of evaluation which covers (1) trainee reactions (did they like the training), (2) the trainee learning (in terms

of skills), (3) trainee behaviour change (resulting changes from the acquired skill) and (4) results (tangible outcomes of the training e.g., staff retention rates, strategic aims, profit). Whilst such a comprehensive evaluation was not within the scope of the overall thesis, it was a useful model which influenced evaluation decisions. It was decided to focus on trainee behaviour change and trainee reactions to the training.

Following the results of the scoping exercise, it was agreed with the organisation to focus on measurement of change-oriented behaviours. *Change-oriented* behaviours fall into two categories: *adaptive* behaviour and *proactive* behaviour (Griffin et al., 2010; Park et al., 2020). A*daptive behaviour* related to responding readily to changing demands or conditions in the environment (Pulakos et al., 2000). *Proactive behaviour* relates to self-directing action to bring about change (e.g., taking personal responsibility or personal initiative (e.g., Crant, 2000; Morrison & Phelps, 1999; Parker et al., 2006).

As identified in Study 1, there is small body of literature on mindfulness in the context of change and uncertainty (e.g., Hall, 2018; Rees, 2017) and how there may be a positive relationship between mindfulness and openness to change (e.g., Barner & Barner, 2011; Barner & Barner, 2013), openess to experience (e.g., Kaviani & Hatami, 2016; Langer & Moldoveanu, 2000b), cognitive flexibility (Moore & Malinowski, 2009), and transformational change (Aviles & Dent, 2015). In a workplace setting, Hunter and Chaskalson (2013) propose that mindfulness can help leaders to become more adaptive to

change and challenge. One recent study indicates promising findings between mindfulness and adaptability in dynamic work settings (Johnstone & Wilson-Prangley, 2021). This study looks more specifically at the retail workplace setting.

7.2 Study Aims and Objectives Introduction

The aim of this study was to implement the adapted MBP on a small scale and examine its effectiveness and mechanisms of change. There were two main objectives: firstly, to assess changes in self-reported levels of (a) mindfulness, (b) mental wellbeing, (c) proactivity and (d) adaptive performance and, secondly, to inductively explore the participants' experiences, with a view to understanding the behavioural outcomes and how the programme works. Programme adherence was also recorded to understand any attendance patterns.

7.3 Methods

7.3.1 Study Design

A single-case design was used, with a mixed methods and a social validation approach. Whilst an experimental design was considered, the retail store work-setting and limited participant availability did not allow for the required

large sample size or control group. Single case design is frequently used in educational or behavioural interventions to examine changes in participants and considered by many a rigorous and scientific method for building evidence-based interventions (Horner et al., 2005). It's practical, flexible, and cost-effective design, was deemed appropriate for this workplace setting. However, to strengthen external validity and be able to generalise to other settings, times and people, meta-analytic studies would be required.

In line with the pragmatic philosophy described in the Methodology Chapter (Chapter 3), a mixed method approach was used to collect data. This mix of quantitative and qualitative analysis is often used in single-case design studies (Neil et al., 2013). The qualitative approaches allow the psychological experiences of the participants to be heard and enable insight into how participants understood any process of change (Abba et al., 2008). It can also be useful to elaborate on the emerging patterns in the quantitative data. Using a social validation approach enabled exploration of participant perspectives on the importance, appropriateness, and satisfaction of the intervention, thus facilitating understanding of effectiveness. Page and Thelwell (2013) describe this approach as instrumental to understand, evaluate and document the impact that interventions have on individuals.

7.3.2 Participants

Participant recruitment was carried out via email invitation and advertisement posters in store. The programme was named "Mind – Athletics" and

described as programme to help employees thrive in their working environment. The only exclusion criterion was that of a current diagnosis of schizophrenia or bipolar disorder. Mindfulness-based practice can be difficult for those with current mental health concerns or history of trauma, and the participants were made aware of this before giving informed consent. Of the 12 who showed initial interest, none cited mental health issues and so no exclusion was necessary. Three were unable to attend due to non-availability, and one dropped out after the second week as they were leaving the organisation.

There were 8 participants (5F, 3M; M age = 25.25 years, range 23-29 years). 5 of the 8 participants had also taken part in the Study 2 interviews. In terms of job roles, 3 participants were Department Managers and 5 were Sales Assistants. Nationalities of participants included Spanish, Scottish, Italian, and Hungarian, which was representative of the store population.

Participation was voluntary and each provided informed consent to participate in both the mindfulness programme and the research (see Appendix B). The study received ethical approval from the institution's ethics committee (see Appendix A). To allow each participant to be tracked and any important patterns to be noted, each participant carried the same profile name throughout the study (e.g., P1, P2).

7.3.3 Intervention

The intervention design is described in the chapter on designing and communicating the programme (Chapter 6). In brief, the programme was designed based on the MBSR programme, with adaptations informed by the scoping exercises and outlined in Chapter 6. Figure 7.1 reminds us of the programme.

The programme had two components: teaching sessions and home practice. In terms of teaching sessions, there were two formats: teacher-led and self-led. The teacher-led class format involved guided sitting or movement meditation, group inquiry and dialogue, and psychoeducation) and took place on-site at the store, or off-site. The on-site classes were 2 hours in length. The off-site classes were 3 hours, which allowed for longer exercises and more in-depth inquiry and dialogue. In this case study, the teacher held the dual role of researcher.

Table 7.1 Mind Athletics Programme Details

	Mind-Athletics Programme	**TEACHING**	**HOME PRACTICE**
Week 1	DEVELOPING & SUSTAINING FOCUS AMIDST THE BUSYNESS	2h face to face class, on site	Formal: 5 minutes + Informal: 5-15 minutes
Week 2	DEVELOPING CURIOSITY FOR OUR BODY'S SIGNALS & DIFFERENCE BETWEEN PERCEPTION AND REALITY	2h face to face class, on site	Formal: 5 minutes + Informal: 5-15 minutes
Week 3	DEVELOPING AWARENESS OF INTENTION AND ACTION THROUGH THE BODY	3h face to face class, **off site**	Formal: 10 minutes + Informal: 5-15 minutes
Week 4	NOTICING OUR BEHAVIOUR DURING "GOOD" DAYS AT WORK	2 X 30 minute online video	Formal: 10 minutes + Informal: 5-15 minutes
Week 5	NOTICING OUR BEHAVIOUR DURING "CHALLENGING" DAYS AT WORK	2 X 30 minute online video	Formal: 10 minutes + Informal: 5-15 minutes
Week 6	DEVELOPING WAYS OF BEING WITH UNCERTAINTY & CHANGE IN THE WORKPLACE	3h face to face class, **off site**	Formal: 10 minutes + Informal: 5-15 minutes
Week 7	DEVELOPING OUR INTERPERSONAL PRESENCE AT WORK	2h face to face class, on site	Formal: 10 minutes + Informal: 5-15 minutes
Week 8	BEING PROACTIVE IN OUR CHOICES AND OUR WELLBEING	2h face to face class, on site	You choose

The self-led classes consisted of two 30-minute videos which participants could watch at a time that was convenient during the week. The videos contained short meditation exercises, psychoeducation, and reflective questioning. There was no interaction between group members during the online weeks although it was encouraged.

In terms of home practice, the students were set exercises for between each session. These exercises included a daily guided meditation of between 5

and 20 minutes, informal mindfulness exercises and short self-reflection exercises. A WhatsApp group was set up to communicate these exercises and to allow exchange and motivation during the week between participants. Little exchange took place.

7.3.4 Measures

Measures included psychometric self-report questionnaires, social validation measures, and adherence measures. Each of these will now be briefly outlined.

Adherence Measures

A weekly attendance register administered by the teacher was used to record attendance of the teacher-led classes. The self-led online classes relied on self-reported attendance, recorded by ticking a box in their reflective journals. Reflective journals were requested to be completed weekly by all attendees. To check completion, screen shots of these journals were returned at mid-point and at the end of the programme. The process for the self-led adherence relied heavily upon the diligence of each participant. This will be discussed in the Strengths and Limitations section in Chapter 8.

Questionnaire Measures

To observe any changes over time in mindfulness, wellbeing, pro-activity, and adaptive performance, the questionnaires were administered at different time points*: pre-intervention, mid-, post-,* and *one-month follow-up*. Ideally

baseline testing or the use of a staggered baseline would have been employed but limited time and participant availability prevented this possibility and is recognised as a study design limitation. The self-report measures collected will now be presented briefly.

Five Facets of Mindfulness Questionnaire

To stay consistent with Study 1, the short version of the Five Facets of Mindfulness Questionnaire (Baer et al., 2012) was again selected to measure trait mindfulness. The questionnaire contained 15 items and used a Likert scale of 1 (never or very rarely true) to 5 (very often or always true). The detailed explanation for this scale selection can be found in the Methodology Chapter (Chapter 3). It was considered a suitable choice for a workplace population, given its broad comprehensive framework of five facets: *Observing, Describing, Acting with awareness, Non-judging of Inner Experience and Non-reactivity to Inner Experience*. There has since been the creation of a psychometrically valid “Mindfulness at Work" Scale (Hülsheger & Alberts, 2021) but this was validated after this research project.

Warwick-Edinburgh Mental Wellbeing Scale

The Warwick-Edinburgh Mental Wellbeing Scale (Tennant et al., 2007) was chosen to measure the hedonic and eudemonic elements of wellbeing. This scale specifically considers positive affect (feelings of optimism, cheerfulness,

relaxation), satisfying interpersonal relationships and positive functioning (energy, clear thinking, self-acceptance, personal development, competence, and autonomy). It consists of 14 items using a Likert scale of 1 (None of the time) to 5 (All of the time). The scale has a construct validity of between 0.89 and 0.91 and a test-retest reliability of 0.83. It is extensively used in UK government and country council wellbeing programmes and is part of the UK Health outcomes Framework.

Other measures addressing the positive aspects of mental health were considered, for example the WHO-10 Well-Being Index (Bech et al., 1996), the Orientations to Happiness Questionnaire (Peterson et al., 2007) and the theoretically derived six factor Scales of Psychological Wellbeing (Ryff & Keyes, 1995) but discarded due to reliability and validity concerns.

Proactive Personality Scale

The Proactive Personality Scale (Seibert et al., 1999) was chosen to measure personal disposition toward proactive behaviour (Bateman & Crant, 1993). The scale considers that proactive personality is the determinant of proactive behaviour. It contains 10 items and uses a Likert scale of 1 (absolutely false) to 7 (absolutely true).

Several other scales were considered, for example the Proactive Attitude Scale (Schwarzer & Schmitz, 1999), the Proactive Coping Scale (Greenglass et al., 1999) and the Proactive Decision-making scale (Siebert & Kunz, 2016).

These were discounted either due to their unilateral nature, length, or narrow focus. The PPS was chosen for its high internal consistency (alpha = 0.86).

Adaptive Performance

To provide consistency with Study 1, adaptive performance was measured using the same 19-item Adaptive Performance scale (Charbonnier-Voirin & Roussel, 2012). It was selected for its appropriateness for workplaces and its psychometric qualities which support reliability, internal validity, and convergent validity. Based on Pulakos et al. (2000) taxonomy, it contains five dimensions: creativity, reactivity to change in the face of emergencies or unexpected circumstances, interpersonal adaptability, training and learning, and managing stress.

Social Validation Measures

Social validation measures (Page & Thelwell, 2013) were administered to understand the experience of the participants and to determine the importance, satisfaction, and appropriateness of the programme.

Social validation survey

To allow any changes to be made during the programme if needed, the social validity of the programme was assessed at the programme's mid-point via a short survey (see Appendix D). It was completed on paper at the end of

session 4. All participants completed this survey. The survey contained ten questions addressing the extent to which the programme was important, useful, and well-suited to the individual and the organisation. A Likert Scale of 1(*not at all*) to 7 (*extremely)* was used. No changes to the programme were deemed necessary according to the results.

Social validation interview

A semi-structured interview schedule was designed in line with recommendations by Page and Thelwell (2013). The schedule contained three main sections to address the three main aims of social validation: (1) the social significance, (2) the social appropriateness and (3) the social importance of the intervention. Each section began with broad, open-ended, and non-leading questions. Elaboration questions, prompts and probes were used to elicit details and examples (DeJonckheere & Vaughn, 2019)

7.3.5 Procedure

Piloting

To check for comprehension issues, both the questionnaires and interviews were piloted. The questionnaires were piloted by 2 participants. No changes were deemed necessary to the wording of the questionnaires, which meant the exact wording could be retained. A pilot interview was conducted with a non-participant who had recently participated in another mindfulness

programme. This helped to check the comprehension of the questions. The interview schedule was refined following this process in the form of re-wording and simplifying some questions.

Questionnaires

The questionnaires (see Appendix C) were administered using paper and pen immediately before the beginning of the first session (pre-intervention), at the end of the week 4 class (mid-intervention) and at the end of week 8 (post-intervention). This was to ensure the tests were completed on time and not retrospectively. The follow-up questionnaire 1-month after the end of the intervention was administered using JISC Online Surveys and was completed within 1 week of being issued.

Interviews

All eight participants were interviewed, and these interviews were conducted in the two weeks following the end of the programme. The interviews were carried out face-to-face in a private, and convenient meeting room within the workplace. The interviewer asked the participants' permission to record the interviews using a hand-held voice recorder. All participants consented to this, and the interviews were recorded with a portable MP3 recorder, thus allowing the interviewer to stay focused on the interviewee. The participants were asked all the questions on the interview schedule, however the order differed depending on the how the conversation flowed (DeJonckheere & Vaughn, 2019). Interview length varied between 30 minutes and 1 hour, with

the majority lasting about 45 minutes. The recordings were then transcribed verbatim by a professional transcription service. The accuracy of the transcriptions was ensured by comparing the recording with the transcripts. Member-checking (Lincoln et al., 2011) of the data by the participants was carried out to check correct understanding of the data and to enable any amendments to be made. No amendments were needed.

7.3.6 Data Analysis

Quantitative Data Analysis

The data was presented in both tables and in graphs to show a visual representation. To identify trends, a visual inspection of the data and descriptive statistics of the questionnaire scores, mid-point social validation survey responses, and participant adherence took place. Firstly, inspection was made *within cases* and *between phases to* detect any changes in the dependent variables. Changes maintained over time were considered changes in behavior and potentially resulting from the intervention. Secondly, visual inspection *across cases*, allowed observation of any trends in increases or decreases in the dependent variables. Eight single cases allowed for a degree of recurrence of themes to be more identified.

Qualitative Data Analysis

The interview data was transcribed and imported into the qualitative software package QSR NVivo Version 11.0. In accordance with research methodology

outlined in the Methodology Chapter (Chapter 3) , Braun & Clarke's (2006) six steps of inductive thematic analysis was applied to the interview transcripts: *1. familiarisation of transcripts, 2. forming initial codes, 3. searching for themes, 4. reviewing themes, 5. defining and naming themes* and *6. producing reports.*

To establish rigour, techniques suggested by Johnson et al. (2020) were used. For example, a critical friend (Smith & McGannon, 2018) was used for the qualitative interview data. The themes and codes where there were differences in agreement, were discussed, and an agreement reached regarding the appropriate categorisation. A reflective journal was also kept throughout the qualitative data analysis process to record reflections.

7.4 Results

To recap, there were two main objectives. The first was to assess the outcomes (i.e., to identify changes in self-reported levels of mindfulness, mental wellbeing, proactivity, and adaptive performance). The second objective was to gain understanding of the programme's process (i.e., to inductively explore the participants' experiences and views on the possible active ingredients of the programme). In this chapter, the key findings from the first objective will be presented and discussed, as well as the programme adherence findings. The key findings from the second objective will be presented and discussed in Chapter 8.

7.4.2 Quantitative Findings

The key quantitative findings will be presented, and where appropriate, these findings are supported by qualitative data from the interview data. Secondly, other additional findings from the interview data analysis be presented.

Five Facets of Mindfulness Questionnaire Scores

Figures 7.1, 7.2 and 7.3 below illustrate that whilst participants reported a notable increase in post-intervention scores for the facets *describing, observing,* and *acting with awareness,* the scores for these facets were at their highest at the intervention mid-point. At one-month follow-up point, all participants showed either a stable or continually increasing score.

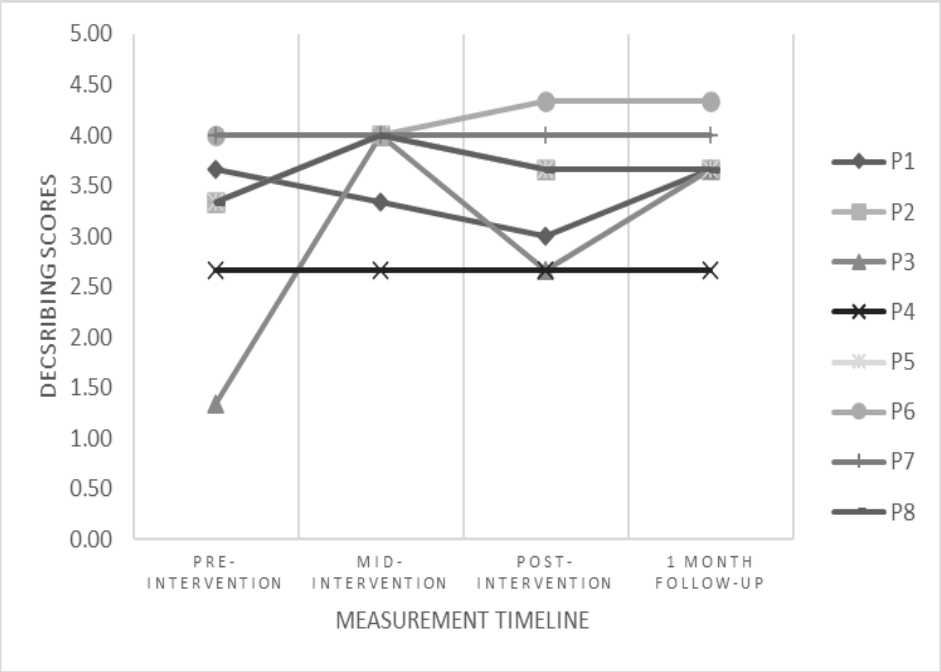


Figure 7.1 Describing Scores: the ability to label feelings, thoughts, and experiences with words.

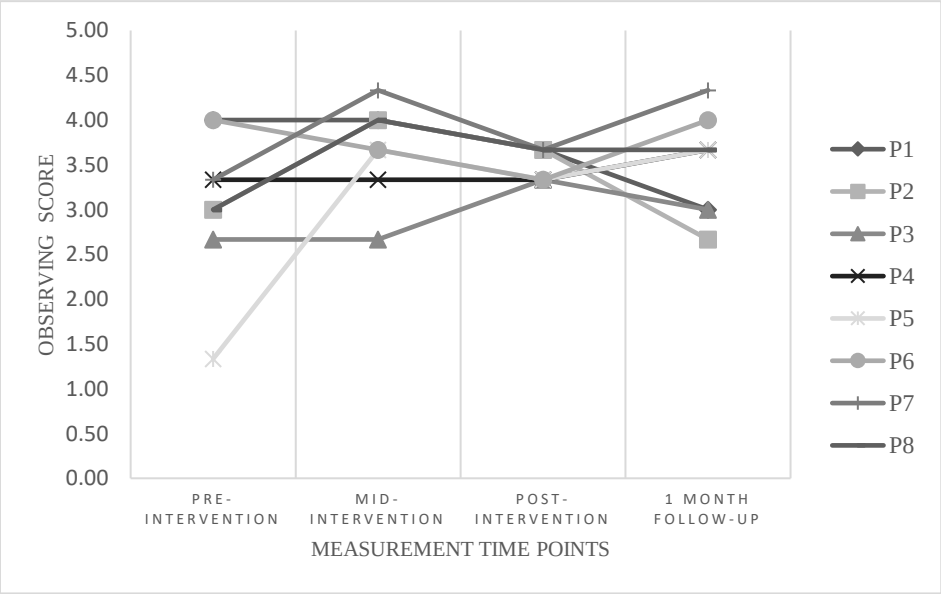


Figure 7.2 Observing scores: noticing or attending to internal feelings and thoughts and external simulation.

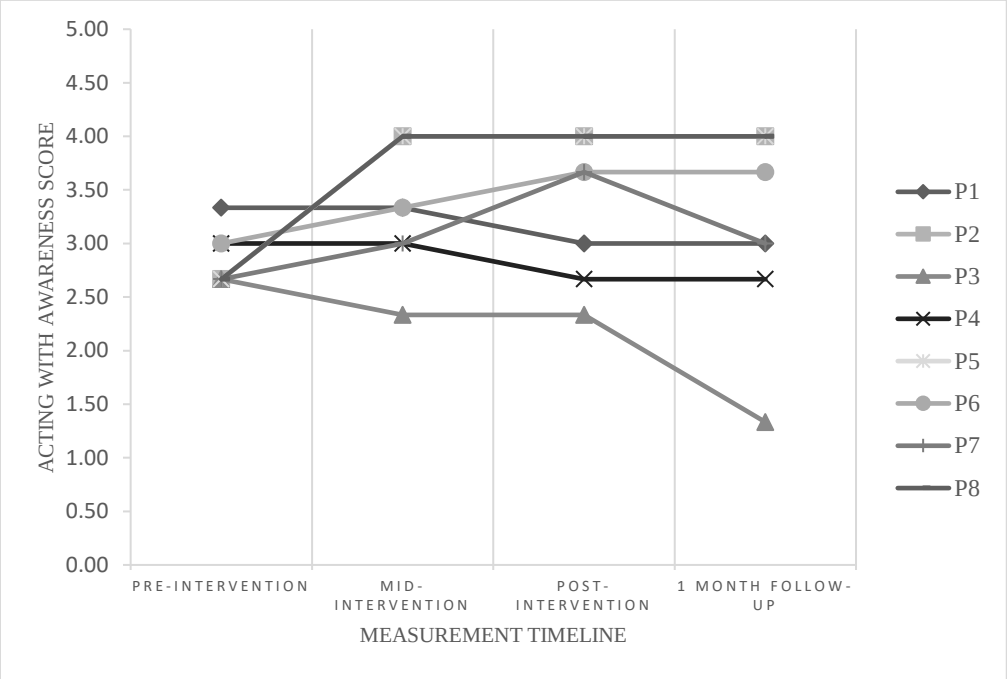


Figure 7.3 Acting with Awareness Scores: attending to what is happening in the present moment.

The social validation data supported the upwards trend in "*acting with awareness*" with participants generating many examples of acting with awareness. Participant 7 illustrates this:

> *"But maybe at home with my son… I realised I need to sometimes be more patient or take it easy…. but I didn't think about it before. It's now because of the programme I've been more aware" (P7)*

For the facet of n*on-judging of inner experience,* many participants' scores improved gradually over the intervention's duration as can be seen in Figure

7.4. However, in contrast to the first three facets, there was no notable peak at intervention mid-point across cases,

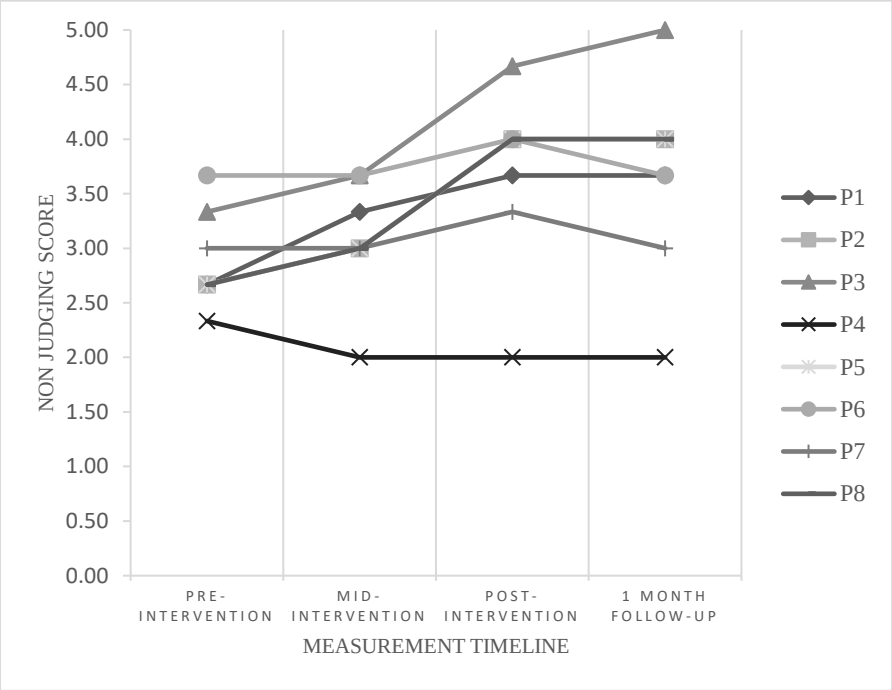


Figure 7.4 Non-judging of inner experience Scores: taking a non-evaluative stance toward internal thoughts and feelings

Participants' experiences reinforced this positive trend. For example, participant 1 spoke of not reacting to the usual internal chatter of what they "should" be doing when with a team member:

> *"It helped me to, like, not to feel bad that I'm not doing the things that I generate in my head I should do. So instead, be on the tills, serve customers, and do that good" (P1)*

For the facet of *non-reactivity to inner experience*, most participants' scores improved at the intervention mid-point, The scores were generally maintained or improved following the intervention and at 1-month follow-up. as illustrated in Figure 7.5. However, there were some notable exceptions, for example, Participant 3 fell sharply over the duration of the programme, with a sharp rise in the follow up period.

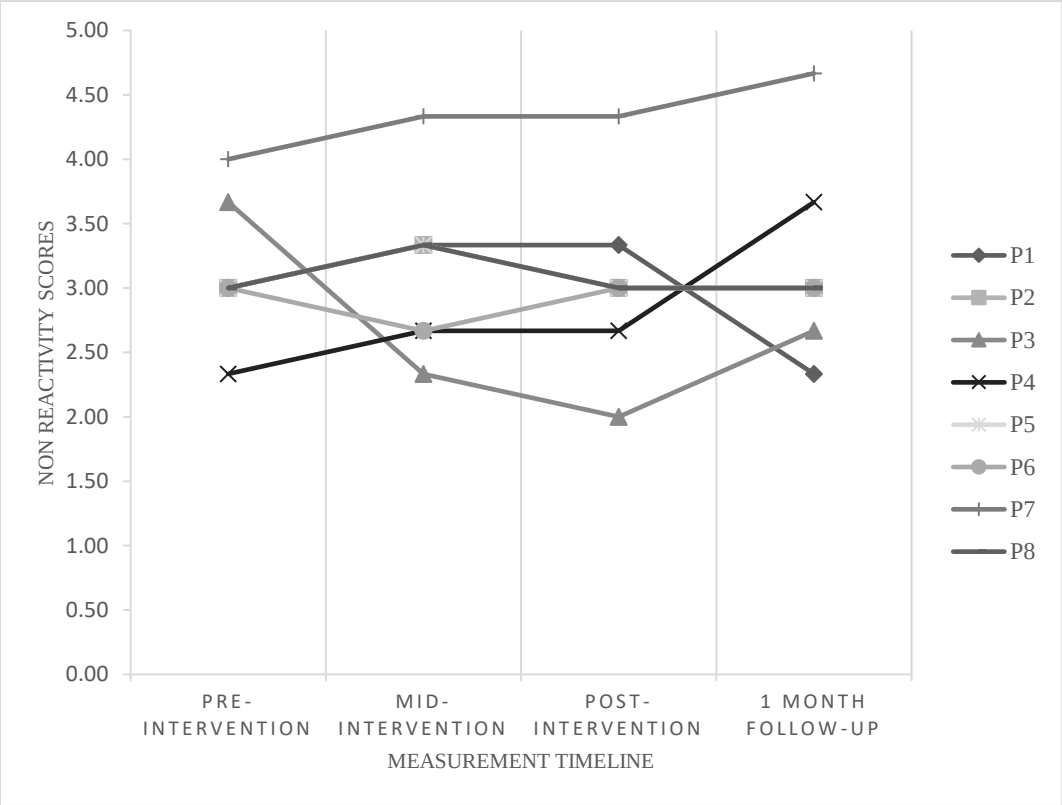


Figure 7.5 Non reactivity to inner experience Scores: allowing emotions and thoughts to come and go, without being interfered by them.

A few participants expressed experiences of non-reactivity during the social validation interviews. One example of this from Participant 6 was not reacting to doubting thoughts:

> *"But sometimes I'm not confident that I'm a person who can have a lot of new ideas. So, this helped me sometimes being more, you know, thinking, 'This is just your thought. You're making this and maybe it's not like this" (P6)*

In summary, there was a trend of improvement in the five facets of mindfulness scores across participants, and this was reinforced by qualitative evidence. Therefore, as will be explored in the Discussion section, it is possible that the programme facilitated trait mindfulness.

Warwick-Edinburgh Mental Wellbeing Scores

There was an upwards trend in the WEMWBS scores across most participants, with most participants' wellbeing scores improving post-intervention and showing a sustained or further improvement at the 1-month follow up point.

As illustrated in Figure 7.6, most participants' scores were, again, highest at the intervention's mid-point. Two participants (P5 and P7) showed a slight dip post-intervention.

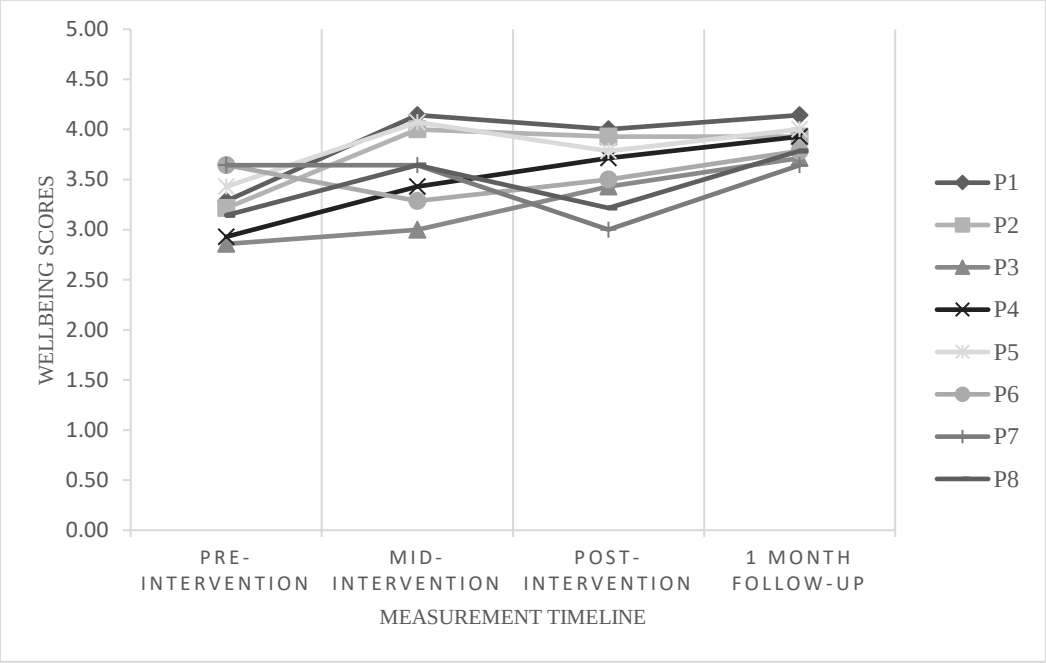


Figure 7.6 WEMWBS Scores

The questionnaire measured *positive affect*, *satisfying interpersonal relationships* and *positive functioning*. The scores increased over the course of the programme and in the follow up period. The social validation data provided examples of these, which reinforces the quantitative findings. For example, positive affect was illustrated in this participant's description of cycling to work:

> *"Always when I am cycling, it rains. And instead of becoming frustrated, I just smiled. I'm smiling and it actually makes me feel better." (P5)*

Examples on satisfying interpersonal relationships will be highlighted in the qualitative data results section, where a distinct theme on open dialogue and kindness towards customers and team members was identified.

In summary, there was a sustained improvement trend in WEMWBS scores beyond the duration of the programme and this was supported by the qualitative data. It can therefore be concluded that it is likely the programme facilitated mental wellbeing.

Adaptive Performance Scores

The overall adaptive performance scores indicated no notable changes within the single participants or notable trends across participants, except for an increase in scores across all participants in the follow up period. It is important to note that the adaptive performance scores were already high before the intervention and so the possibility of a ceiling effect exists.

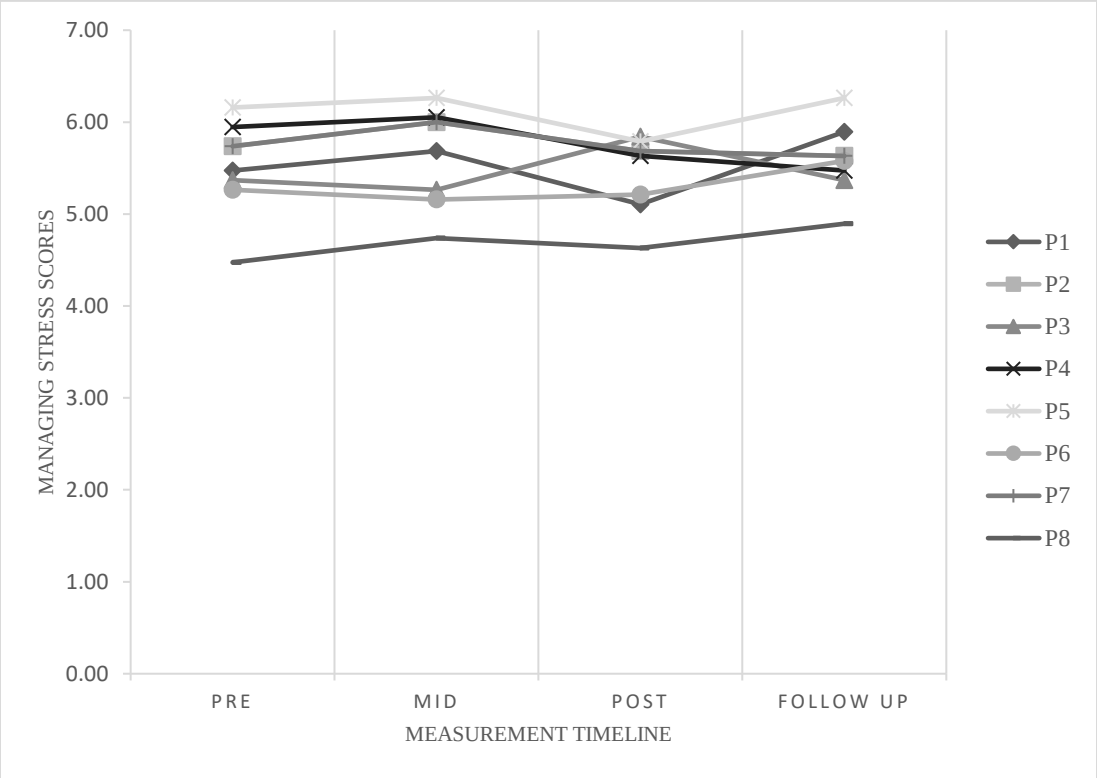


Figure 7.7 Individual Adaptive Performance Scores

On visual inspection of each individual factor score, the only notable trend was in the factor of *training and learning* where 5 participants' scores improved markedly at the intervention mid-point. The improvement was not, however, sustained.

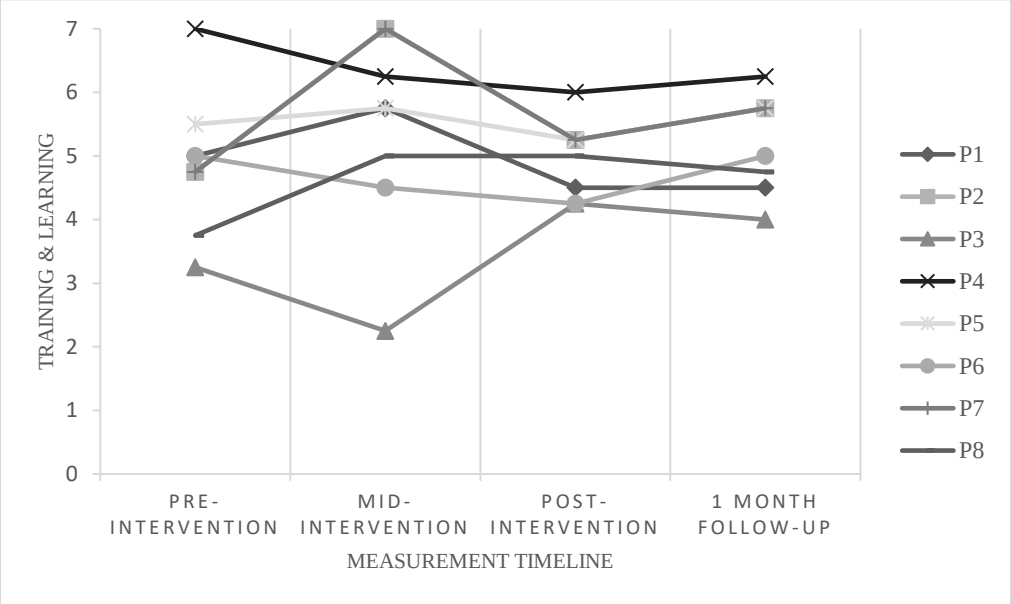


Figure 7.8 Training and Learning Factor Scores

The social validation data provided some examples of proactivity in training and learning, as illustrated by Participant 8 who described:

> *"If there's something I don't know or something I'm unsure of, I take the action to actually try to learn it or try to ask. Whereas before maybe there was this approach of, 'Oh, I don't know so I'll wait and maybe things will become clearer'" (P8)*

Whilst for the other four factors of individual adaptive performance, the quantitative results were mixed and non-conclusive, the qualitative data suggested observable changes in *interpersonal adaptability* and *managing stress*. For example, illustrating improved interpersonal adaptability, Participant 1 spoke regarding an interaction with one of her team members:

> *"She left the EYA (End of Year Appraisal) with peace and good energy, and she gave me some feedback: 'I feel that you listen to me, and we are both here. I feel you are more open than you used to be'". (P1)*

In terms of managing stress, Participant 1 also illustrated an increased capacity to maintain composure and manage stress:

> *"I feel I am more calm and able to see and recognise what's happening around me, therefore I am more aware of how I react, and I am more aware of the things. I think my reactions are less… I can't find the word…impulsive." (P1)*

In synthesis, whilst the quantitative score trends were non-conclusive, the qualitative data indicated changes in some aspects of individual adaptive performance which indicates that the programme may have influenced participants' interpersonal adaptability and capacity to manage stress. This will be addressed further in the discussion section.

Proactive Personality Scale scores

Visual inspection of the proactive personality scores showed that most participants' scores improved at the mid-intervention point but that this improvement was not sustained after this point. There was one exception, with Participant 2, whose scores decreased steadily over the course of the programme and follow up period. Again, the Proactive Personality Scores were reasonably high before the intervention. Whilst this could be due to a response bias, it could also be indicative of a ceiling effect.

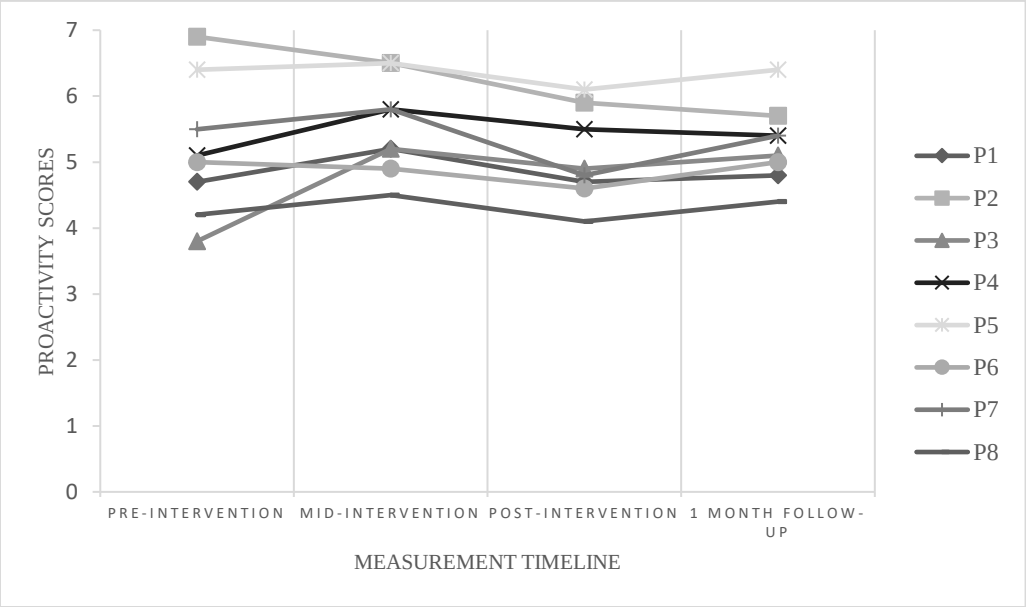


Figure 7.9 Proactive Personality Scores

In summary, it was not evident from the Proactive Personality scores that the programme influenced proactivity. This will be explored further during the discussion section.

In general, the recurring trend across all measures of an increase in scores at the intervention mid-point was noted. This will be addressed and interpreted in the discussion section.

7.4.3 Qualitative Findings

Inductive thematic analysis resulted in 6 overarching themes (with 20 sub-themes and 93 codes). These over-arching themes were *increased*

awareness, *becoming more intentional in choice of behaviour*, *a more calm and happy disposition*, *more open dialogue with others*, *more empathy/kindness for others* and *more qualitative focus on a single work task*. The themes and their sub-themes are shown visually in Table 7.2, and each will be briefly described and illustrated thereafter.

Table 7.2 Programme Outcomes: Identified Themes and Sub-themes

Emerging Themes	Sub themes
	awareness of self (e.g., thoughts, own
Increased awareness	reactions)
	awareness of others (e.g., their perspective)
	awareness of environment (e.g., sounds,
	sights)
More intentional behaviour choice	choosing to be present rather than in thoughts
	choosing to accept things as they are
	choosing to be with one task
	choosing to be kinder
	choosing to try and see things from a different point of view
	choosing helpful wellbeing actions (rather than unhelpful coping strategies)
More calm disposition & enjoyment at work	ability to stay calm during a multitude of tasks
	present moment focus as facilitator of calm
	more enjoyment of work activity in the
	moment
More open dialogue with teammates & customers	listening better to teammates
	being more curious with customers
More empathy towards teammates & customers	being more understanding of teammates
	being more kind towards customers
	being more patient with family
More focus on a single work task	when multi-tasking on shopfloor or at tills
	with commercial analysis
	During team member meetings

Increased awareness

Most participants spoke of having more awareness of themselves, others, or their surroundings. In terms of increased self-awareness, an increased awareness of thoughts was prevalent as illustrated here by Participant 6:

> *“Sometimes I’m not confident that I’m a person who can have a lot of new ideas. So, this helped me sometimes, thinking, ‘This is just your thought. You’re making this. But maybe it’s not like this so’…” (P6)*

An example of increased awareness of others, is illustrated here:

> *“I think the lessons put me again in contact with meditation. It also put me in contact with my colleagues' problems and understanding them. I cannot expect that everyone acts or feels the same that I do, you know? So, in some way it’s also about understanding the others’ moments.” (P2)*

In terms of increased awareness of surroundings, participants described how they became more aware of their workplace environment, for example:

> *“I think sometimes we don't hear the noise, for example, of the customers, and now, sometimes, I just stop, and you hear all the noises, the customers speaking, a kid crying, some of the music, some colleagues chatting. I'll say that I'm trying to be more aware of what is surrounding me, not just when I'm relaxed or having a shower,..as well, when I'm working.” (P5)*

More intentional behaviour choice

Many participants spoke of making more conscious behaviour choices. 6 sub-themes of behaviours emerged from the data: *choosing to be present rather than in thoughts, choosing to accept things as they are, choosing to be focussed on one task, choosing to be kinder, choosing to try and see things from another point of view* and *choosing helpful wellbeing action rather than unhelpful coping strategies.*

A selection of these will now be illustrated by participant quotes. For example, Participant 6 quote below illustrates choosing to be focused on one task, as they describe the common scenario of having a multitude of tasks to do:

> *"Speaking with my colleagues when we have issues – and have that moment and not thinking about "Oh I should do this, I have this paperwork, I have these reports, I have this stuff to do" …because I have in my mind here like 1000 things to do. Instead of feeling the frustration about this. I was with the things I was doing. "(P6)*

Participant 2's quote offers an example of choosing to accept things:

> *"And for that… to find a way to understand, to accept the fact that I'm here right now, so this is what I have to do. And then, one minute later, that's my moment, so that's what I have to do. And then all these tensions that are generated when I'm not able to accept that that's the thing I have to do and then this is the second thing I have to do, they can be avoided." (P2)*

Participant 5 talks of choosing to try to see things from a colleague's perspective:

> *"Trying to be more understanding as well with my teammates. What can be in their minds as well. I'm going to try to be in his skin, and to try to understand why he is doing or behaving like that" (P5)*

More calm disposition and enjoyment at work

Many participants expressed a sense of increased calm and happiness at work. The different categories were ability to stay calm in a multitude of tasks, present moment as a facilitator, and more enjoyment of work activity in the moment.

In the sub theme of *staying calm amidst a multitude of tasks*, one participant described how choosing to focus on one single task helped them to be calmer:

> *"So, I think it's very helpful 'cause there are times when it's quite challenging to deal with different tasks and before I used to sort of panic or stress out if I'm at the tills, the phone is ringing, there is a big queue, there is something else going on. And I think now I'm aware of the phone ringing and the queue and everything but I'm just focusing on that one task. So that is a big improvement." (P8)*

In the sub theme *present moment focus as facilitator*, participants expressed how being focussed on the present moment either made them calmer or enjoy things more. In terms of calm, Participant 6 and 1 illustrated this well with:

> *"Yeah, sometimes I am more present. And not wondering, not worrying myself too much with future thoughts or future tasks.…So it helped in a way to kind of remember that you can also not worry about that now….I feel more relaxed because I can put some things aside. So, it helped me with that." (P6)*

> *"So I stopped and I am consciously in the present…. I'm more calm and able to see and recognise what's happening around me." (P1)*

In the category of more enjoyment at work, participants spoke of finding work activities more enjoyable. For example, Participant 1 said:

> *"With customers a lot of times. I'm having deeper conversations with them. I can remember specific people, having discussions, and that really gives me energy. Before that I was really serving them first and being efficient, but I think it's good for the company as well and it's good for me as well 'cause it's something that gives me positive impact" (P1)*

More open dialogue with team members and customers

Many participants had interesting experiences of being more open in interactions with colleagues or customers. For example, in terms of dialogue with colleagues:

"I'm more calm and able to understand the other side and listen…, & one of my team members said, 'What happened, P1? Something changed. You seem much more open and listen more.'" (P1)

and in terms of dialogue with customers:

"In the end they (the customers) take my advice and it's not necessarily because of my knowledge but because I was also more open for this and accepting the fact that I have two, three people standing behind them. I just call help and I'm not in a rush. And I make it a personalised service for them" (P2)

More empathy towards colleagues and customers

Several participants noticed they were more understanding and patient with team members, customers, or family. Here is an example with colleagues:

"I think the lessons put me again in contact with meditation, and with…. I don't know how to explain…with the empathy. It put me in contact with my colleagues' problems and understanding them. And yeah, it was very productive. I cannot expect that everyone acts or feels the same that I do, you know? So, in some way it's also about understanding the others' moments." (P2)

And here a reflection on interacting with customers:

"a kinder and friendlier approach towards customers, more curiosity in conversation with customers" and "Taking time to find an appropriate solution for customers" (P8)

More focus on single work tasks

Many participants noticed they were better able to let go of other distractions, which meant they gave better attention to the work task in hand. There were numerous examples (e.g., focus on shopfloor customer-related tasks, focus

during commercial analysis, and focus during team member meetings.

Participant 8 describes her experience at the tills:

> *"During the busy days of Christmas, it helped me to, like, not to feel bad that I'm not doing the things that I generate in my head I should do. So instead, be on the tills, serve customers, and do that good" (P8)*

Participant 6 describes focus during commercial analysis:

> *"Also, when you're doing economic analysis. The focus really helps there. Sometimes you can be very messy in your mind and having a lot of thoughts of other things and maybe not feeling like 'Okay, I'm going to sit on a chair and just do this now.' So, in that case I think that focus helps a lot. I could see a relevance on what I was doing in that moment."(P6)*

and during team-member meetings:

> *"Just thinking about, like I said with the EYAs (End of Year Appraisals) or…I can use this technique to be more present and focused and say things how I want to say them. ….. or giving feedback, being present on what you're actually saying, writing, how you want to do it, how you want to say that" (P6)*

Overall, these qualitative findings provide evidence of positive behavioural changes in the workplace. This will now be further explored in the discussion section.

7.5 Discussion

The first objective was to examine the programme's behavioural outcomes. This section provides insights on the key findings and offers reflections in relation to the existing literature. The study's strengths and limitations,

possible future research directions and implications for practice, will be addressed in Chapter 8.

Three over-arching insights have been drawn from the results: (1) *the programme facilitated several favourable behaviour outcomes beyond wellbeing,* (2) *mindful behaviour appears to be a precursor to these outcomes*, and (3) *there was a mid-programme peak in behaviour change*. Each of these will now be discussed in more depth.

7.5.1 Favourable Outcomes

Increased Mindfulness

The study found an increase in three facets of mindfulness and participants spoke of mindful behaviours such as *increased awareness and more intentional behaviour choice.* It is therefore plausible that mindfulness mediated other behaviour outcomes.

Increased Wellbeing

Congruent with several systematic reviews, meta-analyses and qualitative reviews (e.g., Allen et al., 2015; Lomas et al., 2019a; Vonderlin et al., 2020), the study found an increase in mental wellbeing scores and participants reported *a happier and calmer disposition.* The study thus strengthens the premise that workplace MBPs facilitate employee wellbeing.

Work-related behaviours and performance

The study also contributes to the growing literature base on the effect of workplace MBPs beyond wellbeing.

Change-oriented behaviours

Whilst the quantitative measures of change-oriented behaviours (adaptive performance and proactivity) did not indicate improvement, the qualitative data clearly demonstrated two aspects of adaptive performance (*interpersonal adaptability* and *capacity to manage stress*). The findings differ from Johnstone and Wilson-Prangley (2021) study that found positive correlations between mindfulness and all aspects of adaptability except for the interpersonal aspect. However, as suggested by Rosenkranz et al. (2019), it is plausible that short-term changes in cognitive and emotional mechanisms lead to behaviour change in a future time frame. Eby et al. (2019) propose it will be important to develop theoretically based models that can be used to predict when change in mindfulness and other outcomes are expected to occur. Whilst a longitudinal study was out with the scope of this project, it would be useful to have longer follow-up periods to see if effects to change-oriented behaviours took place over a longer period of time, as well as check if immediate post intervention effects endured. The mixed nature of the findings and the limited follow-up area merit further research before conclusions are drawn.

Open and empathic dialogue with team and customer

The open and empathic dialogue findings complement previous studies suggesting, for example, a positive relationship with team member exchange (Hawkes & Neale, 2020), a relationship between mindfulness, openness and empathy (Kaviani & Hatami, 2016), increased collaboration (Kay & Skarlicki, 2020), perspective-taking (Hafenbrack et al., 2020), active listening and a less judgmental attitude (Singh et al., 2006). The experiences described are aligned with the literature on the relationship between mindfulness and prosocial behaviour (Donald et al., 2019). Prosocial behaviour is broadly defined as action that helps or benefits another (Thielmann & Pfattheicher, 2022). In the workplace, prosocial behaviour is often referred to as *organisation citizenship behaviour*. This describes behaviours beyond an employee's contractual obligations that benefit others in the workplace (e.g., altruism towards colleagues, representing the organisation positively outside of work, or taking on tasks beyond one's role (Smith et al., 1983). Asthana (2021) and Williams and Polito (2022) both found that mindfulness was positively related to organisational citizenship behaviour.

This study contributes to the literature an empirical example of the positive affect mindfulness can have on relationships in a retail working environment. And interestingly, Fehr and Fischbacher (2003) talk of prosocial behaviour as a central feature of human adaptive success as it cultivates co-operation and cohesion among groups.

Single task focus

The enhanced single task focus finding is congruent with existing literature on mindfulness, attentional focus, and task performance in dynamic environments (e.g., Chiesa et al., 2011; Dane, 2011; Dane & Brummel, 2014) and offers a first example in a retail setting. Given the prevalence of multi-tasking in shopfloor roles, it would be valuable research to explore more specifically the relationship between an MBP, the efficiency of attentional processing and the ability to multi-task.

7.5.2 Mindful behaviour as a precursor for behaviour outcomes

The participants' experiences described mindful behaviour (e.g., *increasing awareness*, and *deliberately choosing behaviour)* as preceding a favourable behaviour (e.g., being more open and empathic dialogue, more focus on single tasks). This suggests a reduction in "automaticity" of behaviour, a key step during behaviour change (Kang et al., 2014) and points towards mindful behaviour being a mechanism of psychological change during the programme. In addition, this confirms Glomb et al. (2011) assertion that more intentional choices in behaviour can lead to enhanced workplace functioning.

Figure 7.10 and 7.11 below illustrate how mindfulness creates these behaviour changes.

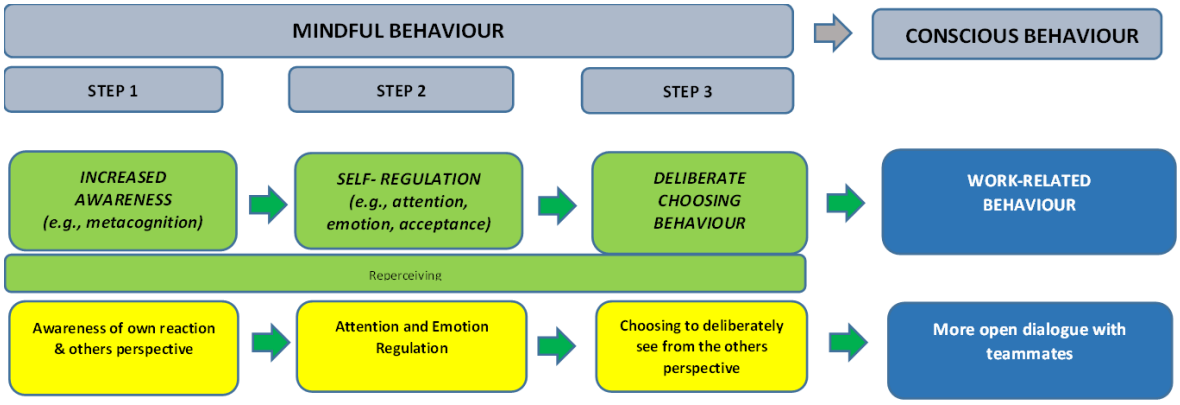


Figure 7.10 Examples of mindfulness-based psychological change for work related behaviours

The figure illustrates three steps to mindful behaviour (1) increased awareness, (2) self-regulation, and (3) acting with mindfulness attitude. The process of increasing awareness of thoughts (metacognition) creates an objectivity or "psychological distancing" (Brown et al., 2007; Hülsheger et al., 2014), which then enables the individual to self-regulate. In Figure 7.10 the participant self-regulates their attention and then chooses to focus on the perspective of the other, rather than their own. This example concurs with Wachs and Cordova (2007) who found that attention regulation can led to active listening, thus improving dialogue.

This theory of change supports Good et al. (2016)'s proposed theoretical framework that workplace outcomes are enhanced through mindfulness effecting the basic human functions of attention, cognition, emotion, behaviour, and physiology.

7.5.3 Mid Programme Peak in behavioural scores

A recurring pattern of a drop in psychometric scores after the mid-point was observed across the measures and single cases. One plausible reason for this could be the drop in participant engagement in the second half of the programme. It is possible that the length of the programme was not suitable for the population or working environment or alternatively, external activities (such as a busy Christmas retail period) had an impact. This will be discussed further in Chapter 8, when participant adherence is considered.

7.6 Conclusion for Programme Outcomes Objective

In summary, this study illustrates the positive impact that workplace MBPS can have on employee wellbeing and work-related behaviours and performance in a retail setting. Furthermore, the findings enabled insight into the pathways to these behaviours, eliciting a theory of mindfulness-based psychological change. The next chapter, which evaluates the programme process, addresses how the programme worked to activate the behaviour changes.

Chapter 8 Evaluating the programme process

8.1 Introduction

Whilst Chapter 7 presented and discussed the outcomes objective, Chapter 8 presents the study findings associated with the second objective (a *process evaluation).*

As part of a pilot trial of an adapted MBP, Loucks et al. (2022) suggest exploring the mechanisms at play. This was also the intention of the process evaluation. Process evaluation can help to understand how the participants experience the MBP, from which an understanding of *how* the adapted MBP activated the process of psychological behaviour change can be elicited. Blamey et al. (2013) propose that an intervention can benefit from reflection on the underlying theory.

Despite increasing demands in the behaviour change literature to identify the mechanisms of action in behaviour change programmes, this is rarely carried out (Rhodes & Beneicke, 2002), and this is also the case with mindfulness-based programmes. Beyond the active ingredients cited by Sanghvi (2019), illustrated in the literature review chapter (Chapter 2), there yet to be empirical evidence on the strength of these factors and the mediating and moderating role they may play. This is in part due to the lack of active control experiments (van de Velden et al 2015).

The review of the literature outlined that for an MBP in an organisational setting, the mechanisms can be *participant*-related, *programme*-related and *organisation*-related. Given this complexity, relying solely on psychological behavioural theories is insufficient. A more holistic approach is required that considers the complexity of an organisational setting. Furthermore, drawing from the psychotherapy literature(Goldberg, 2022), it is also offered that common factors and therapeutic factors may affect MBP outcomes (Canby et al., 2021).

Programme theory (Funnell & Rogers, 2011) is one such broad approach that takes into consideration the social and environmental aspects as well as the individual. It often consists of a *theory of change* (i.e., how the behaviour change takes place), which can be psychological, social, physical, or economic and a *theory of action* (i.e., how the programme explicitly activates this behaviour change). In Chapter 7, a behavioural theory of change was elicited and through the process evaluation it was hoped that a theory of action might be identified. It would provide a simple way to visually explain the processes at play to the retail organisation (whilst acknowledging that reducing the complex interactions into a simplistic causal pathways diagram is not without its limitations).

8.2 Results

8.2.1 Programme Adherence

Single case participation rates were calculated for (1) class attendance (both teacher-led classes and self-led modules) and (2) home practice engagement (daily exercises and weekly reflective journal). The results can be found in Table 8.1.

Table 8.1 Participant Engagement in Programme

CLASS ATTENDANCE			HOME PRACTICE ENGAGEMENT		
Participant	Full teacher-led class attendance (register by teacher)	self-led class attendance (self-report)	**Participant**	weekly reflective journal submission (self-report)	daily audio exercise engagement (self-report)
P1	83%	50%	**P1**	38%	13%
P2	100%	100%	**P2**	75%	33%
P3	100%	50%	**P3**	50%	15%
P4	100%	100%	**P4**	50%	4%
P5	83%	0%	**P5**	13%	2%
P6	83%	0%	**P6**	25%	0%
P7	83%	0%	**P7**	25%	4%
P8	83%	50%	**P8**	63%	23%
Mean	90%	44%	**Mean**	42%	12%

Teacher-led classes were well attended with a mean across participants at 90%. The two weeks of self-led online classes were less well attended with a mean across participants of 44%.

In home practice engagement, the mean weekly submission of a reflective journal was recorded at 42% and daily audio exercise engagement was

recorded at 12%. So, engagement in the self-led elements of the programme was notably lower than class adherence.

It was also noticeable that the home practice engagement during the second half of the programme (following the self-led weeks) dropped. This can be seen visually in Figure 8.1 below.

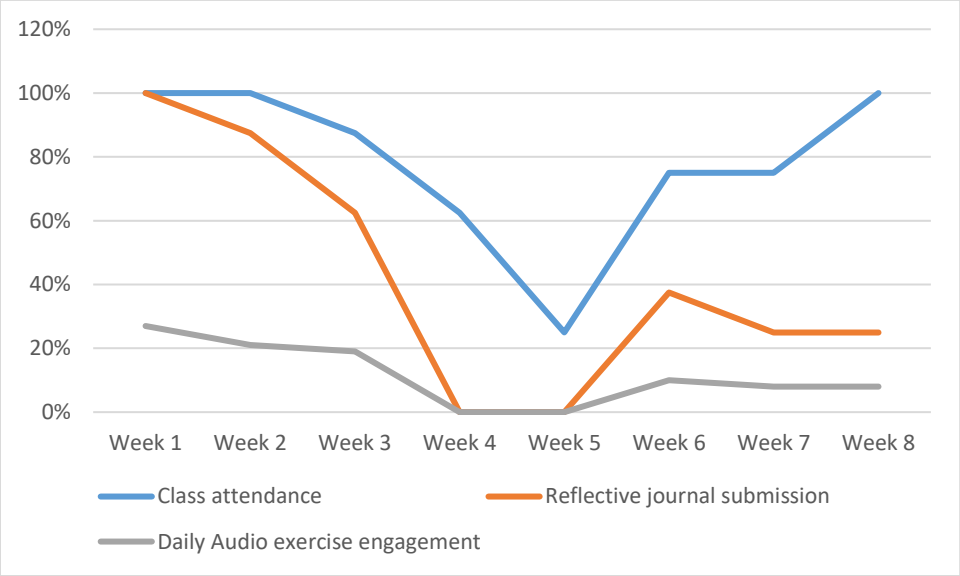


Figure 8.1 Participation trend during the programme

8.2.2 Participant Experience Findings

Inductive thematic analysis in accordance with Braun & Clarke (2015) six steps resulted in 4 overarching themes (with 12 sub-themes and 24 codes). These are illustrated below in Table 8.2.

Table 8.2 Participant Experiences: Themes, Sub-themes, and Codes

Themes	Sub-themes	Codes
Participant-related factors	Perceptions and Attitudes	perception as chore perception as non-priority curious attitude confident attitude
	knowledge & understanding	doubts on the how doubts on the efficacy
	Experience	pre-programme during programme fear
	Expectations	Discrepancy between expectation and outcome
Delivery-related factors	Programme length & regularity	need for more space to digest & reflect need for regularity
	Programme location	undisturbed environment
	Preference for synchronous delivery	Difficult to self-motivate
Teaching-related factors	Teaching Content	Delivery of Psychoeducation
		Making content relevant to workplace
	Teacher's presence & expertise	Teacher presence
		Teacher expertise
Group-related factors	Group composition	Group size circa 8
		Diversity of group
	Group sharing	Peer learning
		Sense of connection
		Sense of belonging
	Group attitude	Influencing each other

Each overarching theme will now be presented with quotes to illustrate the distinct sub-themes.

Participant-related factors

The participant-related factors were participant perceptions and attitudes, participant knowledge and understanding, participant experiences and level of participant expectation.

Regarding perceptions and attitudes, different perceptions and attitudes had different influences on programme engagement. For example, some participants perceived mindfulness practice as a chore making engagement harder:

> *"It wasn't lack of interest because it was interesting. Probably…I felt like doing it daily was like a chore sort of situation, you know? 'No, I'm not up to that now" (P6)*

Others described it as a low priority in terms of their daily priorities. For example:

> *"I don't want to mean that it's not important, but I have classes and I have assessments and I think I cannot be 100% focused in this when I have those things." (P4).*

A number of participants spoke of being curious, and how it helped to engage them:

> *"I was curious to know more about it and actually see how to put it in my daily life. Cause I was thinking that it could have been something helpful for everyone and for me." (P6)*

In the sub-theme *participant knowledge and understanding*, participants spoke of doubts on how to practice, for example:

> *"Probably with this, I'll say as well, the confusion of I am not sure how to do it, because I know that if I go to the gym, I know what I need to do" (P5)*

and doubts on the efficacy of practicing:

> *"But the recordings, it's like I have this idea that they're already useless. Which probably doing both together it would have actually helped.... But I think I was kind of lacking confidence on the methods" (P6)*

In the *participants' experiences* sub-theme, participants expressed how positive or negative experiences prior to and during the programme impacted their participation. For example, Participant 6 explained that they were influenced by a previous negative experience with meditation recordings:

> *"And also, I must say that I knew about mindfulness because I had this app on my phone, and I was using that to try to get help sleeping. So, the class, okay, I will give a shot to the classes. But the recordings, it's like I have this idea that they're already useless." (P6)*

In terms of being influenced by a positive experience, Participant 2 described how it kept them engaged:

> *"The course itself it was very interesting, useful, helpful, so I kept motivated because it was working" (P2)*

In the *participant expectation* sub-theme, Participant 6 described how they felt disappointed when programme expectations were not met:

> *"Well as I said, maybe the expectation can be that at one moment there's a click….and you're like " I got it". So, at one point I realised this wasn't the case. So, in a way maybe there was a childish disappointment." (P6)*

One participant also spoke of the role of fear in practicing alone:

> *"Maybe because as we said before, the sensations that arise aren't necessarily always good. So sometimes, especially when we are struggling*

a bit, we maybe are afraid that something is going to come up and we're going to break down." (P8)

Overall, these participant-related findings indicate that the participant plays an important role in their programme engagement and experience.

Delivery-related factors

This theme consisted of three sub-themes: *programme length and class regularity, programme location* and *preference for* synchronous *delivery*. In terms of programme length and regularity, some participants expressed a preference for a longer programme, with space between sessions for assimilation, reflection, and practice:

"Maybe two splits (parts of the programme) for me - to give a bit of time to get used to the habit of practising what happened in the first couple of weeks. And then when you have the habit, go to the next step. I feel really that I missed a lot there." (P1)

Half of the participants mentioned the weekly occurrence as being a good frequency of sessions, whilst two participants would have preferred twice a week. Participant 4 said:

"The frequency was good, once per week. We had like a routine; it was organised. This one is very important for me". (P4)

In terms of *programme location*, all participants expressed a preference for either an undisturbed location (i.e., not the store) or a quiet time of day (i.e., after the store is closed). For example, participant 5 stated:

> *"A Sunday at six is a very good time, because you close the store, everyone leaves, and we all stay in here to do the course, and you know that you are not working afterwards. You already worked, and it is just now time to chill out, relax. You don't have to do anything work-related, or decathlon related afterwards." (P5)*

With regards to the sub-theme of preference *for synchronous delivery*, all participants mentioned the difficulty they had with participating in self-led classes or home practice. For example, participant 8 stated:

> *"Yeah, I still struggle with this. I always prefer the energy in a class…… I don't know. Yeah, I like to share things with other people and do it face-to-face." (P8)*

These findings suggest these delivery-related factors had an influence on the programme experience.

Teaching-related factors

The two sub-themes identified were *teaching content* and *the teacher's presence and expertise.* In terms of *teaching content*, most participants considered the psycho-educational aspects delivered by the teacher as an important element of the programme, as highlighted by Participant 7:

> *"It wasn't only the part that we were meditating. No, the fact that you are teaching us all those things that I didn't know, for me was super-interesting, super-interesting." (P7)*

Several participants expressed the importance of the class content being relevant to their working life. They found the following themes relevant: *developing awareness of autopilot at work*, *exploring reactive patterns when facing difficulty, change or uncertainty at work*, and *developing awareness in working relationships*.

In terms of the teacher themselves, the *teacher's presence* and the *teacher's expertise* were identified as being influential. In terms of *teaching presence*, Participant 6 summarised this:

> *"Well, I think your presence helped a lot because there's actually a human being there that is explaining things or guiding you. So, it's really easy for me to be interested in that. But then when I'm alone and it's just a recording…it didn't give me the motivation…" (P6)*

Participant 7 illustrated the importance of the *teacher's expertise* with:

> *"To be here, listening to you, everything you were saying, everything made sense, everything. I didn't hear those things before. So, it was really good to have that knowledge, someone else telling you that this is like this" (P7)*

In summary, these teaching-related findings suggest that the teaching is an active ingredient of the programme.

Group-related factors

Group composition, *group sharing*, and *group attitude* were identified as sub-themes.

In terms of group composition, nearly all the participants mentioned the group size of 8 as being optimal, saying it felt inclusive and allowed them to feel safe to share, as reflected by Participant 8:

> *"I think we were a good number. It felt safe for sharing. I don't know if it's because I know them, but I think the size has definitely played a role." (P8)*

Many participants highlighted the diversity in the group composition as providing an opportunity to learn from people different to themselves in personality or role, as illustrated here:

> *"We were meeting with people with whom I don't have a lot of relations, like P8.... .I'm very very different from P1 and from P7, that's very good. For example, P8 is very chilled, very calm, and I'm nearly the opposite. That was very, very good." (P5)*

For *group sharing*, most participants mentioned how sharing via group inquiry enabled more learning, connection and cultivated a sense of belonging, as illustrated here:

> *"Coming to the course was kind of also a sharing experience with my colleagues and that makes me feel more integrated as well" (P4)*

In terms of *group attitude*, some participants noticed how the group's mood could influence their programme experience positively or negatively. An example of positive influence was expressed by Participant 8:

> *"There is like, I don't know, a shared intention to just be there for the same purpose. I don't know, I always find that, even on a yoga class. Practising in a class is just…there are so many people there for more or less the same reasons." (P8)*

However, Participant 2 reflected on how the group can detrimentally affect participant engagement:

> *"And also trying to motivate the rest because if the rest aren't motivated and positive it impacts me in some way as well." (P2)*

In summary, these findings indicate that group related factors play a role in the programme's effectiveness.

8.3 Discussion

This section firstly interprets the findings from the process evaluation in relation to the existing literature, whilst acknowledging the strengths and limitations of the whole study. It then offers avenues for future research and discusses implications for practice. It concludes by outlining the broader implications for the adaptation process of an MBP.

8.3.1 Interpreting key findings

Two overarching insights have been drawn from the study findings: (1) *participant engagement in the self-led aspects of the programme was low*, (2) *there were four influencing factors on participant experience*. Each will now be addressed in turn.

Low participant engagement in self-led programme aspects

Adherence records showed that engagement in the self-led elements of the programme was notably lower than engagement to teacher-led classes. It was also noticeable that following the self-led classes, the home practice engagement during the second half of the programme dropped considerably. The lower adherence to self-led aspects is in line with adherence issues reported for digital self-led MBPs. Mrazek et al. (2019) found that 44% of digital MBP studies reported adherence issues, whilst Fish et al. (2016) reported an average attrition rate of digital programmes at 34.5%.

It is possible that the drop in change-oriented behaviour scores in the second half of the programme could have been related to the decreased participant engagement. However, the literature is mixed on dosage effect. For example Davidson et al. (2003) reported no relationship between the levels of logged home practice and changes in self-report scores during a workplace MBSR programme, whereas Carmody and Baer (2008) found a relationship between formal practice and levels of mindfulness and psychological wellbeing. To interpret more precisely the effects of participant engagement on outcomes, more pertinent investigation is required.

Four influencing Factors and a proposed mechanisms of action

Four factors were identified as influencing the participant experience of the programme (and therefore potentially participant engagement and

programme effectiveness): *participant-related factors, group-related factors, teaching-related factors and delivery-related factors*,. This relates to Canby et al. (2021) proposal that, as well as mindfulness, common factors and therapeutic factors may also affect MBP outcomes. Furthermore, the participant, group and teaching-related findings concur with those factors proposed by Hutchinson et al. (2021). These three areas, and the delivery factors will now be briefly discussed in relation to the literature.

Participant-related factors

The identified participant-related factors (participant perceptions and attitudes, participant knowledge and understanding, participant experiences and level of participant expectation) played a cogent role in the participant experience. This aligns with Bohart and Wade (2013) assertion that the client (or participant) is at the centre of the change process. The participant perceptions and attitudes align with the barriers and facilitators of MBP participant engagement literature (e.g., Banerjee et al., 2017). The influence of the level of participant expectation fits with new health behaviour literature that posits expectancy violations can lead to higher attrition rates (e.g., Sears et al., 2011). Indeed, in the MBP literature, it has been found that participant expectation and preference may play a role in supporting good outcomes and class adherence (e.g., Cairns & Murray, 2015; Farb et al., 2012; Hutchinson et al., 2021; Wyatt et al., 2014) Overall, the participant findings reinforce the

active role the participant plays in their MBP experience and the potential impact this can have on programme effectiveness.

Teaching-related factors

The teaching-related factors found in this study (*teaching content* and *teacher presence and expertise)* support the premise that a qualified MBP teacher is important to the participant experience. Whilst the empirical research is not yet conclusive on a link between teacher competence and participant outcome (Hutchinson et al., 2021), the teacher's embodiment and how they read, hold and befriend the group (Griffith, Bartley, et al., 2019) and the teacher's "stewardship" (McCown, Reibel, Micozzi, et al., 2016) are considered important in the participant experience and thus potentially programme effectiveness. The study therefore strengthens the case for initiatives such as the Mindfulness-based Interventions Teaching Assessment Criteria (MBI TAC) and the Mindfulness Network and the British Association of Mindfulness Based Approaches (BAMBA) which support the development of MBP teachers. It also strengthens the proposal by Rupprecht, Koole, et al. (2019) for the development of a competency framework for teachers in the workplace.

Group-related factors

The group-related factors which influenced the participant experience (*group composition, group sharing, and group attitude*) can also be found within group psychotherapy and MBP literature. The findings reinforce Burlingame et al. (2013) model of change mechanisms. This model proposes that *emerging group structure* (e.g., group norms), *imposed group structure* (e.g., group composition), *group social processes* (e.g., social identity theory) and *group emergent processes* (e.g., therapeutic factors) can affect programme outcomes.

Through the lens of this small group treatment model (Burlingame et al., 2013), *group composition* (which included group size) comes under the *imposed structure* factor. In this case study, the fact that there were participants from different roles and with different personalities seemed to enhance the participant experience and the small group size enabled more group sharing.

Group sharing and *group attitude* come under the *group social processes.* In terms of *group sharing*, the findings strengthen the existing literature that group sharing helps to promote the universal nature of human difficulty, normalise experiences and reduce the sense of stigma and increase the sense of belonging and enhance a sense of fellowship, camaraderie, and connection (e.g., Cairns & Murray, 2015; Mackenzie et al., 2007; Malpass et al., 2012; Wyatt et al., 2014). In terms of *group attitude* being an influential

factor, this aligns with the possible role that social identity theory may play in developing the group attitude as a way to promote group harmony and commitment.

Delivery-related factors

The importance of delivery-related factors to the participant experience (*programme length and class regularity, programme location*, and a *preference for synchronous delivery),* whilst not part of the common and group factors literature on interventions, is evidently an additional consideration for the efficacy of workplace MBPs. The preference for a longer programme with space between sessions is supported by literature on the benefits of “spaced” learning rather than close repetition which can allow more generalisation to new situations (e.g., Cepeda et al., 2009; Kang, 2016). The preference for synchronous delivery offers an explanation for the high adherence to the teacher-led classes and the low adherence to the self-led online videos. The importance of considering the programme location has been reported in a clinical setting; Burlingame et al. (2013) speak of how an in-patient or outpatient setting may affect how a group develops. The delivery-related factors add a fourth dimension to Hutchinson et al. (2021) proposed three elements of teacher, participant and group factors.

In summary, given that participant experience may affect participant engagement and/or programme outcomes, these four influential factors can

be considered as potential mechanisms of change. It may be that they can be describe as mechanisms of action; perhaps they activate the mindfulness-based psychological mechanism of change, This theory of action is presented visually in Figure 8.2. Investigation is required in this area to further develop such a theory.

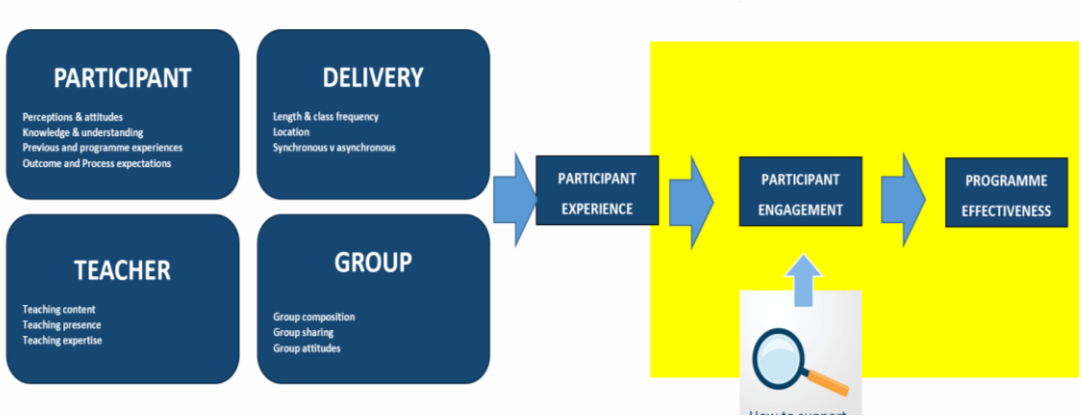


Figure 8.2 Proposed preliminary theory of action

8.3.2 Strengths and Limitations

This study contributes to the workplace MBP literature base by offering the first empirical study in a retail setting. The single case design enabled a rich understanding of participant experience and the pragmatic use of mixed methods also enabled the detection of behavioural changes undetected by the quantitative measures alone. This highlights the usefulness of collecting qualitative data and the limitation of relying uniquely on quantitative data.

A further strength is the details provided of the adapted MBP. Michie et al. (2009) assert that only 5 % to 30% of experimental behaviour change studies report in detail the interventions, and this is also a common limitation in the workplace MBP research area studies (Lomas et al., 2017).

Alongside these strengths, there are several limitations to acknowledge. Firstly, the case study design means that the findings are not generalisable to other workplace settings or populations.

Secondly, the threat of research bias posed by the dual role held by the researcher as the MBP teacher must be acknowledged, even if reflexive journalling was carried out to mitigate the risk (Smith &McGannon, 2018). The researcher reflected on how their prior knowledge, beliefs and assumptions as an MBP teacher and as former employee may have influenced their inquiry, data analysis and reporting.

Thirdly, the heavy reliance on self-report to measure behaviours and to record self-led practice is open to response bias. The behaviour measures also require the individual to be able to inquire into their own behaviour, which is a capacity which can be enhanced as an individual becomes more mindful (e.g., they may become more aware of how they think or feel). This renders comparing pre- and post-intervention scores potentially unreliable.

A final limitation to acknowledge is the lack of baseline testing or use of a staggered baseline due to limited participant availability. It means there was

not a frame of reference for comparing future scores during or following the intervention.

8.3.3 Future Research Recommendations

Outcomes

In terms of outcomes, it would be interesting to develop understanding of the relationship between mindfulness, change-oriented behaviours, organisational citizen behaviours and task performance in a retail setting. To increase reliability of findings, third party measures by managers and peers or neuro-biological measures could eliminate the response bias of self-report.

To help to show the value of MBP training at a collective and organisational level, it would also be useful to consider how the programme interacts with and impacts the organisation. Indeed, Rupprecht, Koole, et al. (2019) assert that it can be beneficial for MBPs to have a more multi-level approach to integrating mindfulness in organisations. Longitudinal research would enable the measurement of both longer-term effects on programme participants as well as the wider impact of the programme for the organisation.

Process

The preliminary mechanisms of action drawn from the process evaluation provide a platform from which to further investigate the effect and strength of effect of the different factors on participant engagement and programme outcomes. There are many questions to be answered. For example: Is *an increase in mental wellbeing the result of increased levels of mindfulness or a result of group factors? To what extent does the level of participant engagement affect programme effectiveness?*

To support this, more pertinent measurement of participant engagement would also be useful, for example using Banerjee et al. (2018) five facets of psychological engagement in MBPS (*motivation to put time aside to participate, intention to maintain a personal practice, commitment to bringing mindfulness to daily life, the belief that practice will have benefit, the therapeutic relationship between the group and teacher*).

Also, in terms of advancing understanding the effects of self-led participant engagement (informal and formal home practice) it would also be helpful to use supportive technology that records practice frequency and type in real-time (Parsons et al., 2019).

8.3.4 Implications for practice

The study findings have implications for workplace MBP implementation, MBP workplace teachers, and for the case study organisation.

For workplace MBP implementation

The theory of change and action can help MBP to use innovative ways to support programme engagement and effectiveness. Here are three examples of how.

Example 1: Collecting information on participant motivations and preferences prior to the start of the programme could help to personalise the programme content to the participant. This is supported by the literature in the field of organisational training literature (e.g., Salas, Tannenbaum, et al., 2012), which states that understanding trainee characteristics, perceptions, and attitudes is important for these reasons.

Example 2: Integrating a collaborative way to create realistic expectations of the role and impact of the programme (Barber et al., 2014) , as well as collaborative intention-setting exercises and how to achieve these would likely positively affect participant engagement

Example 3: Designing a programme that integrates a way to support the perceived capacity of participants meditation practice could aid in bridging the intention-behaviour. The theory of planned behaviour suggests that *perceived behavioural control* acts as mediator in the intention- behaviour relationship (Ajzen, 1991). For example, integrating a behaviour change model such as the Health Action Process Approach (Schwarzer, 2016) could support participants in building their daily meditation practice. A visual example is provided below in Figure 8.3.

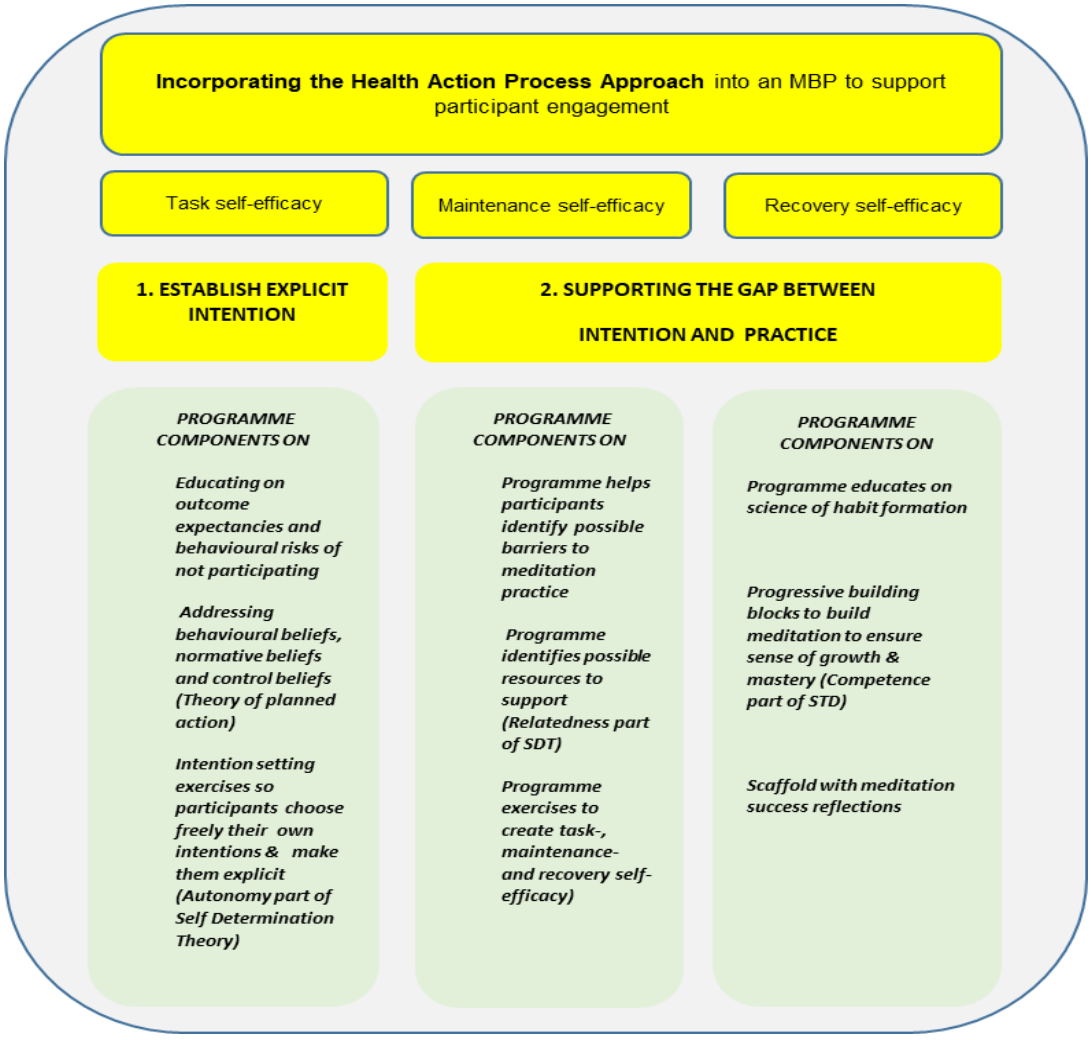


Figure 8.3 Integrating HAPA into an MBP

By capturing real-time home practice data of frequency and duration (Parsons et al., 2019), whilst it would still remain difficult to measure the practice quality (Del Re et al., 2013), it may be possible to personalise support thtrough reminders to paritcipants and deliberate planning of future practices (Sitzmann & Johnson, 2012).

For MBP teachers

The study findings strengthen the case for synchronous teacher-led training and therefore the need for trained MBP teachers. This is because as a teacher's "trouble-shooting" presence enables the answering of questions and the opportunity to discuss difficulties or doubts, thus reducing the risk of programme drop out (Mrazek et al., 2019).

The elicited mechanism of mindfulness-based change and the programme mechanisms of action can support teachers in communicating the relevance of the MBP to the client organisation, as well as *how* the programme achieves the employee wellbeing and performance benefits. This is important as mindfulness if often misunderstood.

For the case study organisation

The MBP programme outcomes regarding customer and team dialogue could provide an innovative way of enhancing the customer service and people skills required in a retail setting (e.g., Hart et al., 2007)

8.3.5 Broader implications for MBP adaptation process

The elicited mechanisms of change could help the quality of the scoping stage of adapting an MBP. For example, using the four factors as the basis for questions to the organisation, could help to tailor the programme to the organisation which in turn could increase participant engagement and programme effectiveness. The framework of the mechanisms of change also provides a useful platform for the design, implementation and evaluation steps.

8.4 Conclusion

Overall, the study strengthens the case for implementing an MBP in a retail workplace to enhance employee wellbeing and retail employee behaviours such as customer and team dialogue and task focus on a busy shopfloor.
It also contributes to the literature on the mechanisms of change of workplace MBPs by proposing a four mechanisms of action. Future research avenues

and implications for practice are offered, to increase participant engagement in a busy retail setting.

Chapter 9 General Discussion and Conclusion

9.1 Introduction

This final chapter begins by summarising the thesis' key contributions to knowledge in the field of adapted workplace MBPS. It acknowledges the strengths and limitations of the thesis and makes recommendations for future research. It synthesises the potential implications the adaptation process and makes recommendations to the mindfulness teaching community. It concludes by offering some short personal reflections on the experience of the PhD journey.

9.2 Thesis Contributions to Knowledge

Based on the gap identified in the literature on MBPs in a retail setting, the overarching research aim was to further understand via a case study of both the outcomes and process of workplace MBPs. There are contributions to knowledge in both these areas and these will now be briefly outlined.

9.2.1 Contribution to Workplace MBP outcomes literature

The intervention study (Chapters 7 and 8) offers the first empirical case study of an MBP in a retail setting and its findings contribute to both outcomes and process knowledge on workplace adapted MBPs.

In terms of outcomes, the case study strengthens the premise that a workplace MBPs can facilitate wellbeing and also adds to the smaller, yet growing evidence base on the potential benefits to work-related behaviours (enhanced customer and team dialogue) and work performance (task performance).

In terms of process, the elicited mindfulness-based theory of change reinforces existing conceptual ideas of how mindfulness works (e.g., Shapiro et al., 2006). It also offers a novel contribution in four proposed mechanisms of action (participant-, teacher-, group- and delivery-related) for an MBP in a retail setting.

The second scoping study (Chapter 5) and the intervention study (Chapters 7 and 8) highlight the challenges of participant engagement in a retail setting, reinforcing the existing literature on potential barriers to meditation practice and MBP, thus building the case to investigate ways to support participant engagement in this setting.

9.2.2 Contribution to MBP Adaptation process Literature

The literature review highlighted the paucity of empirical research on the process of adapting MBPs. By exploring a systematic adaptation process that endeavoured to protect the integrity of MBPs, this thesis contributes the first empirical case study on adapting an MBP to the retail workplace. It offers a 3-

step approach of (1) scoping, (2) designing and implementing, and (3) evaluating. This approach offers a simple and pragmatic alternative for MBP teachers to follow, in comparison to Loucks et al. (2022) detailed 8-step process.

9.3 Thesis Strengths and Limitations

From a pragmatist perspective, the case study research design and use of mixed methods allowed for a detailed and nuanced understanding the topic, which is needed in early-stage research fields. The findings provide a platform from which to base more refined lines of inquiry. Of course, the drawback of a case study design is that the findings cannot be generalised to other contexts (e.g., the theory of action elicited cannot be assumed to apply to other settings). Given the premise of this research is based on a need for adaptation rather than generalisation, this seems like suitable choice of methodology.

The dual role of being a researcher and teacher can be considered a strength or a limitation. However, taking a relational perspective, we impact those we study, and they impact us (Reason 1994) and to strengthen future research projects, a multi-disciplinary team of researchers would reduce the potential biases.

Another thesis limitation is the dominant use of self-report measures. Whilst self-report is widely used in psychological research, it is open to the Hawthorne effect, the overconfidence effect, social desirability bias, and cognitive dissonance (e.g., Grossman & van Dam, 2011) and so not necessarily representative of behaviour (Baumeister et al 2007). To reduce this limitation and strengthen the research, future research would benefit from triangulating self-report data with either third person reporting of behaviour change or neuro-biological measures.

9.4 Future Research Recommendations

Considering the thesis findings, strengths and limitations, this section considers the emerging lines of inquiry that would be useful for advancing both theory and practice in this area. It also proposes thoughts on appropriate methodology for mindfulness research.

9.4.1 Future lines of inquiry

To advance the adaptation process for MBP teachers, it would be useful frame future research on the four potential mechanisms of action. Each factor of the framework requires further understanding (e.g., participant engagement factors) and the relationships between the mechanisms as well as their strength also needs to be understood.

9.4.2 Appropriate research methodology

A discussion is merited around what the most suitable research methodology for mindfulness research may be. Chapter 6 highlighted the tensions that can exist between a mindful way of "being" and how western organisations operate from a "doing" perspective. The tension can also be felt between the mindful way of "being" (e.g., *letting go, non-striving, non-judging)* and the scientific research world which is often characterized by judgement, assessment, and achievement.

To me, the characteristics of an action research approach appear more aligned with the philosophy of mindfulness. Mcardle and Reason (2008) describe it as an inquiry which pursues "*worthwhile purposes for the flourishing of persons, community, and the ecology of which we are all a part" (*p.123) and Selener (1992) proposes that action research has an important place in the empowerment of people, that people have the right and ability to contribute to decisions that affect them and to knowledge that is about them. Furthermore, given the important role the participant plays in MBP effectiveness, it seems fitting to involve participants more fully in programme development. For these reasons, an action-research approach could be a fitting way in which to involve participants.

9.5 Thesis Recommendations for Professional Practice

The 3-part adaptation process provides a simple platform from which to develop a guiding framework for MBP teachers to adapt programmes to different settings. The framework would be intended to act rather as a “North Star” than a manualised “how to”. The main recommendations for each step of the framework will now be briefly summarized.

Firstly, the four potential mechanisms of action provide a useful framework for guiding the three phases of scoping, implementing, and evaluating in a systematic way. For example, basing the scoping questions on the four factors would allow the teacher to check what adaptations may be needed in relation to the four areas affecting participant experience (and potentially participant engagement).

Secondly, the scoping studies show the value of (1) getting the perspectives of both the organisation and the employees, (2) using quantitative and qualitative methods to gain both breadth and nuanced understanding of the working environment, and (3) in understanding the individual and environmental factors which may affect the programme behaviour outcomes.

Thirdly, the theories of psychological change and action elicited in the intervention study offer a support to mindfulness teachers to be able to clearly communicate both the benefits and relevance of a mindfulness-based

programme to the organisation. They also allow teachers and researchers to design more pertinent evaluations of the outcomes and mechanisms of change, which in turn will help to improve future versions of the MBP.

9.6 Potential Impact

Research findings become of value when they become part of practice and create lasting change. A helpful way of considering the journey to impact is the process-oriented “research impact pathway” (Morton, 2015). This involves three steps: firstly, *research uptake*, secondly, *research use* and thirdly, *research impact*.

In terms of research uptake, the research findings have been disseminated to the case study employees. The studies have also been presented at the International Mindfulness Conference in 2020 and two abstracts were accepted for presentation at the European Association of Work and Organisational Psychology Conference in 2021 and 2023. After thesis submission, my intention is to prepare and submit articles for publication in academic journals such as *Mindfulness* and *the European Journal of Work and Organisational Psychology*. This will hopefully lead to the wider dissemination of these findings to key practice decision makers and organisations (Rycroft-Malone et al., 2012) in the field of mindfulness-based programmes research.

In terms of research use, the thesis has helped evolve the adapted programme for the case study organisation. This is currently being offered to employees. The 3-part adaptation framework has been used to create two adapted programmes at the University of Edinburgh – one for Sports Union Students and one for PhD Students.

9.7 Personal Reflections of the PhD journey

The PhD journey has developed me as a researcher and as a human being.

As a researcher

I entered this journey with a background as a practitioner. I had taken the decision to leave an industry (retail) which did not feel aligned with my personality and personal attributes. Always wishing to have more space to reflect to enable more informed and skilful decisions, I thought that perhaps academia would be more suited to me.

At the beginning, I found reading academic papers, quantitative data analysis and writing in an academic style difficult and laborious – akin to walking through treacle! Whilst still a work in progress, I have noticed that my academic literacy is improving, with a developing ability to construct and synthesise arguments more confidently.

The PhD experience has strengthened my conviction that working directly with people (e.g., as a mindfulness teacher) is what brings me energy. I do, however, value the role that research can play in improving mindfulness-based programmes and would like to continue bridging the gap between research and practice. In line with Richard Rorty (1999), I prefer less of an emphasis on theory being “true” or “testable” and more empahsis on research leading to an action which improves a situation. I am therefore curious about exploring the action-research approach within mindfulness research. I find myself drawn to and aligned with Reason (2003) four dimensions of action research: (1) *having a practical purpose*, (2) *characterised by democracy and participation,* (3) *following the idea that there are many ways of knowing*, and (4) *an emergent and developmental format*.

As a human being

This PhD has been both a wonderful and challenging playing field for practicing the attitudinal foundations of mindfulness: *nonjudging, patience, a beginner's mind, trust, non-striving, acceptance, letting go, gratitude* and *generosity.* Along the way, I have encountered feelings of wanting conditions to be different, feelings of discomfort when lacking a clear direction, feelings of impatience with the pace of my writing and feelings of “not good enough” in terms of the quality of the research. The attitudinal foundations have reminded me in these moments to (try and) allow things to “be as they are”.

"The Way It Is

There's a thread you follow. It goes among

things that change. But it doesn't change.

People wonder about what you are pursuing.

You have to explain about the thread.

But it is hard for others to see.

While you hold it you can't get lost.

Tragedies happen; people get hurt

Or die; and you suffer and get old.

Nothing you do can stop time's unfolding.

You don't ever let go of the thread.

William Stafford

As I reach the closing stages of this PhD journey, this poem resonates with me. In recent years, the thread has been the PhD. However, as I complete the thesis, I am aware that the thread remains. It remains in the form of the active hope of making the benefits of mindfulness accessible to more communities of fellow human beings. In the spirit of the attitudinal foundations of mindfulness, I will continue holding the thread lightly, weaving it in and out of my personal and professional life as I see appropriate.

References

Abba, N., Chadwick, P., & Stevenson, C. (2008). Responding mindfully to distressing psychosis: A grounded theory analysis. *Psychotherapy Research*, *18*(1), 77-87.

Aherne, C., Moran, A. P., & Lonsdale, C. (2011). The effect of mindfulness training on athletes' flow: An initial investigation. *The Sport Psychologist*, *25*(2), 177-189.

Aikens, K. A., Astin, J., Pelletier, K. R., Levanovich, K., Baase, C. M., Park, Y. Y., & Bodnar, C. M. (2014). Mindfulness goes to work. *Journal of Occupational and Environmental Medicine*, *56*(7), 721-731.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179-211.

Allen, T. D., Eby, L. T., Conley, K. M., Williamson, R. L., Mancini, V. S., & Mitchell, M. E. (2015). What do we really know about the effects of mindfulness-based training in the workplace? *Industrial and organizational Psychology*, *8*(4), 652-661.

Alvesson, M., & Sköldberg, K. (2017). *Reflexive methodology: New vistas for qualitative research*. sage.

Anderson, N., & West, M. A. (1996). The Team Climate Inventory: Development of the TCI and its applications in teambuilding for innovativeness. *European Journal of Work and Organizational Psychology*, *5*(1), 53-66.

Asthana, A. N. (2021). Organisational Citizenship Behaviour of MBA students: The role of mindfulness and resilience. *The International Journal of Management Education*, *19*(3), 100548.

Atkins, P. W., & Styles, R. (2015). Mindfulness, identity and work: Mindfulness training creates a more flexible sense of self.

Aviles, P. R., & Dent, E. (2015). The role of mindfulness in leading organizational transformation: a systematic review. *Aviles, PR & Dent, EB (August, 2015). The role of mindfulness in leading organizational transformation. A systematic review. The Journal of Applied Management and Entrepreneurship*, *20*(3), 31-55.

Badham, R., & King, E. (2021). Mindfulness at work: A critical re-view. *Organization*, *28*(4), 531-554.

Baer, R., Crane, C., Miller, E., & Kuyken, W. (2019). Doing no harm in mindfulness-based programs: conceptual issues and empirical findings. *Clinical psychology review*, *71*, 101-114.

Baer, R., & Nagy, L. M. (2017). Professional ethics and personal values in mindfulness-based programs: A secular psychological perspective. *Practitioner's Guide to Ethics and Mindfulness-Based Interventions*, 87-111.

Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical psychology: Science and practice*, *10*(2), 125.

Baer, R. A., Carmody, J., & Hunsinger, M. (2012). Weekly change in mindfulness and perceived stress in a mindfulness-based stress reduction program. *Journal of clinical psychology*, *68*(7), 755-765.

Baer, R. A., & Lykins, E. (2011). Mindfulness and positive psychological functioning. *Designing positive psychology: Taking stock and moving forward*, 335-348.

Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment*, *11*(3), 191-206.

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, *13*(1), 27-45.

Baer, R. A., Smith, G. T., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., Walsh, E., Duggan, D., & Williams, J. M. G. (2008). Construct validity of the five facet mindfulness questionnaire in meditating and nonmeditating samples. *Assessment*, *15*(3), 329-342.

Baid, H., & Lambert, N. (2010). Enjoyable learning: the role of humour, games, and fun activities in nursing and midwifery education. *Nurse Education Today*, *30*(6), 548-552.

Baltzell, A., & Akhtar, V. L. (2014). Mindfulness meditation training for sport (MMTS) intervention: Impact of MMTS with division I female athletes. *The Journal of Happiness & Well-Being*, *2*(2), 160-173.

Bandura, A. (2004). Health promotion by social cognitive means. *Health Education & Behavior*, *31*(2), 143-164.

Banerjee, M., Cavanagh, K., & Strauss, C. (2017). A qualitative study with healthcare staff exploring the facilitators and barriers to engaging in a self-help mindfulness-based intervention. *Mindfulness*, *8*(6), 1653-1664.

Banerjee, M., Cavanagh, K., & Strauss, C. (2018). Barriers to mindfulness: A path analytic model exploring the role of rumination and worry in predicting psychological and physical engagement in an online mindfulness-based intervention. *Mindfulness*, *9*(3), 980-992.

Barber, J. P., Zilcha-Mano, S., Gallop, R., Barrett, M., McCarthy, K. S., & Dinger, U. (2014). The associations among improvement and alliance expectations, alliance during treatment, and treatment outcome for major depressive disorder. *Psychotherapy Research*, *24*(3), 257-268.

Barbosa, J., & Casais, B. (2022). The transformative and evolutionary approach of omnichannel in retail companies: insights from multi-case studies in Portugal. *International Journal of Retail & Distribution Management*.

Barner, C. P., & Barner, R. W. (2011). Mindfulness, openness to experience, and transformational learning.

Barner, R. W., & Barner, C. P. (2013). The role of mindfulness in fostering transformational learning in work settings. In *Advances in positive organizational psychology* (Vol. 1, pp. 189-210). Emerald Group Publishing Limited.

Barnes, S., Brown, K. W., Krusemark, E., Campbell, W. K., & Rogge, R. D. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of marital and family therapy*, *33*(4), 482-500.

Bartlett, L., Martin, A., Neil, A. L., Memish, K., Otahal, P., Kilpatrick, M., & Sanderson, K. (2019). A systematic review and meta-analysis of workplace mindfulness training randomized controlled trials. *Journal of occupational health psychology*, *24*(1), 108.

Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, *14*(2), 103-118.

Bech, P., Gudex, C., & Johansen, K. S. (1996). The WHO (Ten) well-being index: validation in diabetes. *Psychotherapy and psychosomatics*, *65*(4), 183-190.

Bedwell, W. L., & Salas, E. (2008). If you build it, will they interact? The importance of the instructor. *Industrial and organizational Psychology*, *1*(4), 491-493.

Ben-Itzhak, S., Bluvstein, I., & Maor, M. (2014). The psychological flexibility questionnaire (PFQ): Development, reliability and validity.

Bergomi, C., Tschacher, W., & Kupper, Z. (2013). The assessment of mindfulness with self-report measures: Existing scales and open issues. *Mindfulness*, *4*(3), 191-202.

Bernstein, A., Hadash, Y., Lichtash, Y., Tanay, G., Shepherd, K., & Fresco, D. M. (2015). Decentering and related constructs: A critical review and metacognitive processes model. *Perspectives on psychological science*, *10*(5), 599-617.

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Segal, Z. V., Abbey, S., Speca, M., & Velting, D. (2004). Mindfulness: A proposed operational definition. *Clinical psychology: Science and practice*, *11*(3), 230.

Blamey, A. A., MacMillan, F., Fitzsimons, C. F., Shaw, R., & Mutrie, N. (2013). Using programme theory to strengthen research protocol and intervention design within an RCT of a walking intervention. *Evaluation*, *19*(1), 5-23.

Block-Lerner, J., Adair, C., Plumb, J. C., Rhatigan, D. L., & Orsillo, S. M. (2007). The case for mindfulness-based approaches in the cultivation of empathy: Does nonjudgmental, present-moment awareness increase capacity for perspective-taking and empathic concern? *Journal of marital and family therapy*, *33*(4), 501-516.

Boblin, S. L., Ireland, S., Kirkpatrick, H., & Robertson, K. (2013). Using Stake's qualitative case study approach to explore implementation of evidence-based practice. *Qualitative health research*, *23*(9), 1267-1275.

Bodhi, B. (2013). What does mindfulness really mean? A canonical perspective. In *Mindfulness* (pp. 19-39). Routledge.

Bohart, A. C., & Wade, A. G. (2013). The client in psychotherapy. *Bergin and Garfield's handbook of psychotherapy and behavior change*, *6*, 219-257.

Boles, J. S., Babin, B. J., Brashear, T. G., & Brooks, C. (2001). An examination of the relationships between retail work environments, salesperson selling orientation-customer orientation and job performance. *Journal of marketing theory and practice*, *9*(3), 1-13.

Bond, F. W., Lloyd, J., & Guenole, N. (2013). The work-related acceptance and action questionnaire: Initial psychometric findings and their implications for measuring psychological flexibility in specific contexts. *Journal of occupational and organizational psychology*, *86*(3), 331-347.

Boyd, J. E., Lanius, R. A., & McKinnon, M. C. (2018). Mindfulness-based treatments for posttraumatic stress disorder: a review of the treatment literature and neurobiological evidence. *Journal of Psychiatry and Neuroscience*, *43*(1), 7-25.

Bristow, J. (2016). Building the Case for Mindfulness in the Workplace. *UK [United Kingdom]: Mindfulness Initiative. Available online also at: https://www. themindfulnessinitiative. org. uk/images/reports/MI_Building-the-Case_v1. 1_Oct16. pdf [accessed in Bandung, West Java, Indonesia: May 2, 2018]*.

Bristow, J. (2019). Mindfulness in politics and public policy. *Current opinion in psychology*, *28*, 87-91.

Brown, K. W., Creswell, J. D., & Ryan, R. M. (2015). Introduction: The evolution of mindfulness science.

Brown, K. W., & Kasser, T. (2005). Are psychological and ecological well-being compatible? The role of values, mindfulness, and lifestyle. *Social indicators research*, *74*(2), 349-368.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of personality and social psychology*, *84*(4), 822.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological inquiry*, *18*(4), 211-237.

Burell, G., & Morgan, G. (1979). Sociological paradigms and organizational analysis. *Elements of the sociology of corporate life*.

Burke, L. A., & Miller, M. K. (1999). Taking the mystery out of intuitive decision making. *Academy of Management Perspectives*, *13*(4), 91-99.

Burlingame, G. M., Strauss, B., & Joyce, A. (2013). Change mechanisms and effectiveness of small group treatments. *Bergin and Garfield's handbook of psychotherapy and behavior change*, *6*, 640-689.

Burnett, M., & Pettijohn, C. (2015). Investigating the efficacy of mind-body therapies and emotional intelligence on worker stress in an organizational setting: An experimental approach. *Journal of Organizational Culture, Communications and Conflict*, *19*(1), 146.

Burton, A., Burgess, C., Dean, S., Koutsopoulou, G. Z., & Hugh-Jones, S. (2017). How effective are mindfulness-based interventions for reducing stress among healthcare professionals? A systematic review and meta-analysis. *Stress and Health*, *33*(1), 3-13.

Cairns, V., & Murray, C. (2015). How do the features of mindfulness-based cognitive therapy contribute to positive therapeutic change? A meta-synthesis of qualitative studies. *Behavioural and Cognitive Psychotherapy*, *43*(3), 342-359.

Canby, N. K., Eichel, K., Lindahl, J., Chau, S., Cordova, J., & Britton, W. B. (2021). The contribution of common and specific therapeutic factors to mindfulness-based intervention outcomes. *Frontiers in psychology*, 3920.

Caporale-Berkowitz, N. A., Boyer, B. P., Lyddy, C. J., Good, D. J., Rochlen, A. B., & Parent, M. C. (2021). Search inside yourself: investigating the effects of a widely adopted mindfulness-at-work development program. *International Journal of Workplace Health Management*.

Cardaciotto, L., Herbert, J. D., Forman, E. M., Moitra, E., & Farrow, V. (2008). The assessment of present-moment awareness and acceptance: The Philadelphia Mindfulness Scale. *Assessment*, *15*(2), 204-223.

Carmody, J. (2009). Evolving conceptions of mindfulness in clinical settings. *Journal of Cognitive Psychotherapy*, *23*(3), 270-280.

Carmody, J., & Baer, R. A. (2008). Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program. *Journal of behavioral medicine*, *31*(1), 23-33.

Carmody, J., Baer, R. A., LB Lykins, E., & Olendzki, N. (2009). An empirical study of the mechanisms of mindfulness in a mindfulness-based stress reduction program. *Journal of clinical psychology*, *65*(6), 613-626.

Carsley, D., Khoury, B., & Heath, N. L. (2018). Effectiveness of mindfulness interventions for mental health in schools: A comprehensive meta-analysis. *Mindfulness*, *9*(3), 693-707.

Cassel, C., & Symon, G. (1994). Qualitative methods in organizational research. *A Practical Guide; Sage: London, UK*.

Cassell, C., Symon, G., Buehring, A., & Johnson, P. (2006). The role and status of qualitative methods in management research: an empirical account. *Management decision*.

Cepeda, N. J., Coburn, N., Rohrer, D., Wixted, J. T., Mozer, M. C., & Pashler, H. (2009). Optimizing distributed practice: theoretical analysis and practical implications. *Experimental psychology*, *56*(4), 236.

Chadwick, P., Hember, M., Symes, J., Peters, E., Kuipers, E., & Dagnan, D. (2008). Responding mindfully to unpleasant thoughts and images: Reliability and validity of the Southampton mindfulness questionnaire (SMQ). *British Journal of Clinical Psychology*, *47*(4), 451-455.

Charbonnier-Voirin, A., & Roussel, P. (2012). Adaptive performance: A new scale to measure individual performance in organizations. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, *29*(3), 280-293.

Chaskalson, M. (2011). *The mindful workplace: developing resilient individuals and resonant organizations with MBSR*. John Wiley & Sons.

Chaskalson, M., & Reitz, M. (2018). *Mind Time: How ten mindful minutes can enhance your work, health and happiness*. HarperCollins UK.

Chiaburu, D. S., Lorinkova, N. M., & Van Dyne, L. (2013). Employees' social context and change-oriented citizenship: A meta-analysis of leader, coworker, and organizational influences. *Group & Organization Management*, *38*(3), 291-333.

Chiesa, A., Calati, R., & Serretti, A. (2011). Does mindfulness training improve cognitive abilities? A systematic review of neuropsychological findings. *Clinical psychology review*, *31*(3), 449-464.

Clark, V. L. P., & Ivankova, N. V. (2015). *Mixed methods research: A guide to the field* (Vol. 3). Sage publications.

Clarke, E., & Visser, J. (2019). Pragmatic research methodology in education: possibilities and pitfalls. *International Journal of Research & Method in Education*, *42*(5), 455-469.

Cohen-Katz, J., Wiley, S. D., Capuano, T., Baker, D. M., & Shapiro, S. (2005). The effects of mindfulness-based stress reduction on nurse stress and burnout, Part II: A quantitative and qualitative study. *Holistic nursing practice*, *19*(1), 26-35.

Condon, P. (2017). Mindfulness, compassion, and prosocial behaviour. *Mindfulness in social psychology*, 124-138.

Cowan, J., & Stroud, R. (2016). Composting reflections for development. *Reflective practice*, *17*(1), 27-33.

Crane, C., Crane, R. S., Eames, C., Fennell, M. J., Silverton, S., Williams, J. M. G., & Barnhofer, T. (2014). The effects of amount of home meditation practice in mindfulness based cognitive therapy on hazard of relapse to depression in the Staying Well after Depression Trial. *Behaviour research and therapy*, *63*, 17-24.

Crane, R., & Griffiths, H. (2021). Implementing mindfulness-based programs. In *Essential Resources for Mindfulness Teachers* (pp. 214-224). Routledge.

Crane, R. S. (2017). Implementing mindfulness in the mainstream: Making the path by walking it. *Mindfulness*, *8*(3), 585-594.

Crane, R. S., Brewer, J., Feldman, C., Kabat-Zinn, J., Santorelli, S., Williams, J. M. G., & Kuyken, W. (2017). What defines mindfulness-based programs? The warp and the weft. *Psychological medicine*, *47*(6), 990-999.

Crane, R. S., & Hecht, F. M. (2018). Intervention integrity in mindfulness-based research. *Mindfulness*, *9*, 1370-1380.

Crant, J. M. (2000). Proactive behavior in organizations. *Journal of management*, *26*(3), 435-462.

Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). Best practices for mixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health*, *2013*, 541-545.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, *39*(3), 124-130.

Dane, E. (2011). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of management*, *37*(4), 997-1018.

Dane, E., & Brummel, B. J. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human relations*, *67*(1), 105-128.

Dane, E., & Pratt, M. G. (2007). Exploring intuition and its role in managerial decision making. *Academy of management review*, *32*(1), 33-54.

Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., Urbanowski, F., Harrington, A., Bonus, K., & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic medicine*, *65*(4), 564-570.

Davidson, R. J., & Kaszniak, A. W. (2015). Conceptual and methodological issues in research on mindfulness and meditation. *American Psychologist*, *70*(7), 581.

DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: a balance of relationship and rigour. *Family medicine and community health*, *7*(2).

Dekeyser, M., Raes, F., Leijssen, M., Leysen, S., & Dewulf, D. (2008). Mindfulness skills and interpersonal behaviour. *Personality and individual differences*, *44*(5), 1235-1245.

Del Re, A. C., Flückiger, C., Goldberg, S. B., & Hoyt, W. T. (2013). Monitoring mindfulness practice quality: an important consideration in mindfulness practice. *Psychotherapy Research*, *23*(1), 54-66.

Deloitte. (2017). *2017 Retail, Wholesale, and Distribution Industry Outlook*.

Denscombe, M. (2008). Communities of practice: A research paradigm for the mixed methods approach. *Journal of mixed methods research*, *2*(3), 270-283.

Dewey, J. (1998). *The essential Dewey: Pragmatism, education, democracy* (Vol. 1). Indiana University Press.

Dix, D., Norton, K., & Griffith, G. M. (2021). Leaders on a Mindfulness-Based Program: Experience, Impact, and Effect on Leadership Role. *Human Arenas*, 1-19.

Dobkin, P. L. (2011). Mindfulness and whole person care. *Whole person care: A new paradigm for the 21st century*, 69-82.

Donald, J. N., Sahdra, B. K., Van Zanden, B., Duineveld, J. J., Atkins, P. W., Marshall, S. L., & Ciarrochi, J. (2019). Does your mindfulness benefit others? A systematic review and meta-analysis of the link between mindfulness and prosocial behaviour. *British Journal of Psychology*, *110*(1), 101-125.

Donaldson-Feilder, E., Lewis, R., Yarker, J., & Whiley, L. A. (2022). Interpersonal mindfulness in leadership development: A Delphi study. *Journal of Management Education*, *46*(5), 816-852.

Dörfler, V., & Ackermann, F. (2012). Understanding intuition: The case for two forms of intuition. *Management Learning*, *43*(5), 545-564.

Dunne, J. D. (2015). Buddhist styles of mindfulness: A heuristic approach. In *Handbook of mindfulness and self-regulation* (pp. 251-270). Springer.

Dunning, D. L., Griffiths, K., Kuyken, W., Crane, C., Foulkes, L., Parker, J., & Dalgleish, T. (2019). Research Review: The effects of mindfulness-based interventions on cognition and mental health in children and adolescents–a meta-analysis of randomized controlled trials. *Journal of Child Psychology and Psychiatry*, *60*(3), 244-258.

Eby, L. T., Allen, T. D., Conley, K. M., Williamson, R. L., Henderson, T. G., & Mancini, V. S. (2019). Mindfulness-based training interventions for employees: A qualitative review of the literature. *Human Resource Management Review*, *29*(2), 156-178.

Eby, L. T., Robertson, M. M., & Facteau, D. B. (2020). Mindfulness and relationships: An organizational perspective. In *Research in personnel and human resources management* (Vol. 38, pp. 57-102). Emerald Publishing Limited.

Economics, R. (2022). *The Outlook for UK Retail & Leisure 2022*.

Ericson, T., Kjønstad, B. G., & Barstad, A. (2014). Mindfulness and sustainability. *Ecological Economics*, *104*, 73-79.

Farb, N. A., Anderson, A. K., Irving, J. A., & Segal, Z. V. (2014). Mindfulness interventions and emotion regulation.

Farb, N. A., Anderson, A. K., & Segal, Z. V. (2012). The mindful brain and emotion regulation in mood disorders. *The Canadian Journal of Psychiatry*, *57*(2), 70-77.

Fehr, E., & Fischbacher, U. (2003). The nature of human altruism. *Nature*, *425*(6960), 785-791.

Feldman, C., & Kuyken, W. (2011). Compassion in the landscape of suffering. *Contemporary Buddhism*, *12*(1), 143-155.

Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and.

Firestone. (2013). *Benefits of Mindfulness*.

Fish, J., Brimson, J., & Lynch, S. (2016). Mindfulness interventions delivered by technology without facilitator involvement: what research exists and what are the clinical outcomes? *Mindfulness*, *7*(5), 1011-1023.

Foster, D. (2016). Is Mindfulness making us ill? *The Guardian*.

Funnell, S. C., & Rogers, P. J. (2011). *Purposeful program theory: Effective use of theories of change and logic models* (Vol. 31). John Wiley & Sons.

Gelles, D. (2012). The mind business. *mind*, *5*, 15.

Gethin, R. (2015). Buddhist conceptualizations of mindfulness.

Ghawadra, S. F., Abdullah, K. L., Choo, W. Y., & Phang, C. K. (2019). Mindfulness-based stress reduction for psychological distress among nurses: A systematic review. *Journal of clinical nursing*, *28*(21-22), 3747-3758.

Ghitulescu, B. E. (2013). Making change happen: The impact of work context on adaptive and proactive behaviors. *The Journal of Applied Behavioral Science*, *49*(2), 206-245.

Glomb, T. M., Duffy, M. K., Bono, J. E., & Yang, T. (2011). Mindfulness at work. In *Research in personnel and human resources management*. Emerald Group Publishing Limited.

Goldberg, S. B. (2022). A common factors perspective on mindfulness-based interventions. *Nature Reviews Psychology*, *1*(10), 605-619.

Goldberg, S. B., Tucker, R. P., Greene, P. A., Davidson, R. J., Kearney, D. J., & Simpson, T. L. (2019). Mindfulness-based cognitive therapy for the treatment of current depressive symptoms: a meta-analysis. *Cognitive behaviour therapy*, *48*(6), 445-462.

Goldberg, S. B., Tucker, R. P., Greene, P. A., Simpson, T. L., Kearney, D. J., & Davidson, R. J. (2017). Is mindfulness research methodology improving over time? A systematic review. *PLOS one*, *12*(10), e0187298.

Good, D. J., Lyddy, C. J., Glomb, T. M., Bono, J. E., Brown, K. W., Duffy, M. K., Baer, R. A., Brewer, J. A., & Lazar, S. W. (2016). Contemplating mindfulness at work: An integrative review. *Journal of management*, *42*(1), 114-142.

Grabovac, A. D., Lau, M. A., & Willett, B. R. (2011). Mechanisms of mindfulness: A Buddhist psychological model. *Mindfulness*, *2*(3), 154-166.

Greenglass, E., Schwarzer, R., Jakubiec, D., Fiksenbaum, L., & Taubert, S. (1999). The proactive coping inventory (PCI): A multidimensional research instrument. 20th international conference of the stress and anxiety research society (STAR), Cracow, Poland,

Grégoire, S., & Lachance, L. (2015). Evaluation of a brief mindfulness-based intervention to reduce psychological distress in the workplace. *Mindfulness*, *6*(4), 836-847.

Griffin, M. A., Parker, S. K., & Mason, C. M. (2010). Leader vision and the development of adaptive and proactive performance: a longitudinal study. *Journal of applied psychology*, *95*(1), 174.

Griffith, G. M., Bartley, T., & Crane, R. S. (2019). The inside out group model: teaching groups in mindfulness-based programs. *Mindfulness*, *10*(7), 1315-1327.

Griffith, G. M., Hastings, R. P., Williams, J., Jones, R. S., Roberts, J., Crane, R. S., Snowden, H., Bryning, L., Hoare, Z., & Edwards, R. T. (2019). Mixed experiences of a mindfulness-informed intervention: Voices from people with intellectual disabilities, their supporters, and therapists. *Mindfulness*, *10*(9), 1828-1841.

Grossman, P. (2008). On measuring mindfulness in psychosomatic and psychological research.

Gu, J., Strauss, C., Crane, C., Barnhofer, T., Karl, A., Cavanagh, K., & Kuyken, W. (2016). Examining the factor structure of the 39-item and 15-item versions of the Five Facet Mindfulness Questionnaire before and after mindfulness-based cognitive therapy for people with recurrent depression. *Psychological assessment*, *28*(7), 791.

Hafenbrack, A. C. (2017). Mindfulness meditation as an on-the-spot workplace intervention. *Journal of Business Research*, *75*, 118-129.

Hafenbrack, A. C., Cameron, L. D., Spreitzer, G. M., Zhang, C., Noval, L. J., & Shaffakat, S. (2020). Helping people by being in the present: Mindfulness increases prosocial behavior. *Organizational Behavior and Human Decision Processes*, *159*, 21-38.

Hall, L. (2018). Mindful Compassionate Coaching: An Approach Perfect for "VUCA" Times. *Professional Coaching: Principles and Practice*.

Haller, H., Winkler, M. M., Klose, P., Dobos, G., Kuemmel, S., & Cramer, H. (2017). Mindfulness-based interventions for women with breast cancer: an updated systematic review and meta-analysis. *Acta oncologica*, *56*(12), 1665-1676.

Hart, C., Stachow, G. B., Farrell, A. M., & Reed, G. (2007). Employer perceptions of skills gaps in retail: issues and implications for UK retailers. *International Journal of Retail & Distribution Management*, *35*(4), 271-288.

Hart, R., Ivtzan, I., & Hart, D. (2013). Mind the gap in mindfulness research: A comparative account of the leading schools of thought. *Review of General Psychology*, *17*(4), 453-466.

Hawkes, A. J., & Neale, C. M. (2020). Mindfulness beyond wellbeing: Emotion regulation and team-member exchange in the workplace. *Australian Journal of Psychology*, *72*(1), 20-30.

Hawley, L. L., Schwartz, D., Bieling, P. J., Irving, J., Corcoran, K., Farb, N. A., Anderson, A. K., & Segal, Z. V. (2014). Mindfulness practice, rumination and clinical outcome in mindfulness-based treatment. *Cognitive Therapy and Research*, *38*(1), 1-9.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). Acceptance and commitment therapy an experiential approach to behavior change.

Hoffmann, T. C., Glasziou, P. P., Boutron, I., Milne, R., Perera, R., Moher, D., Altman, D. G., Barbour, V., Macdonald, H., & Johnston, M. (2014). Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. *Bmj*, *348*.

Hölzel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on psychological science*, *6*(6), 537-559.

Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional children*, *71*(2), 165-179.

Horst, K., Newsom, K., & Stith, S. (2013). Client and therapist initial experience of using mindfulness in therapy. *Psychotherapy Research*, *23*(4), 369-380.

Huang, H.-p., He, M., Wang, H.-y., & Zhou, M. (2016). A meta-analysis of the benefits of mindfulness-based stress reduction (MBSR) on psychological function among breast cancer (BC) survivors. *Breast Cancer*, *23*(4), 568-576.

Hülsheger, U. R., & Alberts, H. J. (2021). Assessing facets of mindfulness in the context of work: The mindfulness@ work scale as a work-specific, multidimensional measure of mindfulness. *Applied Psychology*, *70*(4), 1728-1783.

Hülsheger, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: the role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of applied psychology*, *98*(2), 310.

Hülsheger, U. R., Lang, J. W., Depenbrock, F., Fehrmann, C., Zijlstra, F. R., & Alberts, H. J. (2014). The power of presence: the role of mindfulness at work for daily levels and change trajectories of psychological detachment and sleep quality. *Journal of applied psychology*, *99*(6), 1113.

Hunt, C. A., Hoffman, M. A., Mohr, J. J., & Williams, A.-l. (2020). Assessing perceived barriers to meditation: the determinants of meditation practice inventory-revised (DMPI-R). *Mindfulness*, *11*(5), 1139-1149.

Hunter, J., & Chaskalson, M. (2013). Making the mindful leader: Cultivating skills for facing adaptive challenges. *The Wiley-Blackwell Handbook of the*

Psychology of Leadership, Change, and Organizational Development, 195-219.

Hutchinson, J. K., Jones, F., & Griffith, G. (2021). Group and common factors in mindfulness-based programmes: A selective review and implications for teachers. *Mindfulness*, *12*, 1582-1596.

Huxter, M. (2015). Mindfulness and the Buddha's noble eightfold path. In *Buddhist foundations of mindfulness* (pp. 29-53). Springer.

Hyland, P. K., Lee, R. A., & Mills, M. J. (2015). Mindfulness at work: A new approach to improving individual and organizational performance. *Industrial and organizational Psychology*, *8*(4), 576-602.

James, W. (1907). Pragmatism's conception of truth. *The Journal of Philosophy, Psychology and Scientific Methods*, *4*(6), 141-155.

Jamieson, S. D., & Tuckey, M. R. (2017). Mindfulness interventions in the workplace: A critique of the current state of the literature. *Journal of occupational health psychology*, *22*(2), 180.

Jarden, R. J., Sandham, M., Siegert, R. J., & Koziol-McLain, J. (2019). Strengthening workplace well-being: perceptions of intensive care nurses. *Nursing in Critical Care*, *24*(1), 15-23.

Jha, A. P., Morrison, A. B., Dainer-Best, J., Parker, S., Rostrup, N., & Stanley, E. A. (2015). Minds "at attention": Mindfulness training curbs attentional lapses in military cohorts. *PLOS one*, *10*(2), e0116889.

Jha, A. P., Stanley, E. A., Kiyonaga, A., Wong, L., & Gelfand, L. (2010). Examining the protective effects of mindfulness training on working memory capacity and affective experience. *Emotion*, *10*(1), 54.

Jha, A. P., Witkin, J. E., Morrison, A. B., Rostrup, N., & Stanley, E. (2017). Short-form mindfulness training protects against working memory degradation over high-demand intervals. *Journal of Cognitive Enhancement*, *1*(2), 154-171.

Joffe, H., & Yardley, L. (2003). Content and thematic analysis.

Johns, G. (2001). In praise of context. *Journal of Organizational Behavior*, 31-42.

Johnson, J. L., Adkins, D., & Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. *American Journal of Pharmaceutical Education*, *84*(1).

Johnstone, R., & Wilson-Prangley, A. (2021). The relationship between mindfulness and individual adaptability in dynamic work contexts.

Jundt, D. K., Shoss, M. K., & Huang, J. L. (2015). Individual adaptive performance in organizations: A review. *Journal of Organizational Behavior*, *36*(S1), S53-S71.

Jupp, V., & Sapsford, R. (2006). *Data collection and analysis*. Sage Publications.

Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences*, *8*(2), 73.

Kabat-Zinn, J. (2009). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hachette Books.

Kabat-Zinn, J. (2013). *Full catastrophe living, revised edition: how to cope with stress, pain and illness using mindfulness meditation*. Hachette uK.

Kang, S. H. (2016). Spaced repetition promotes efficient and effective learning: Policy implications for instruction. *Policy Insights from the Behavioral and Brain Sciences*, *3*(1), 12-19.

Kang, Y., Gruber, J., & Gray, J. R. (2014). Deautomatization of cognitive and emotional life. *The Wiley Blackwell handbook of mindfulness*, *1*, 168.

Kanten, P., Kanten, S., & Gurlek, M. (2015). The effects of organizational structures and learning organization on job embeddedness and individual adaptive performance. *Procedia Economics and Finance*, *23*, 1358-1366.

Kaufman, K. A., Glass, C. R., & Arnkoff, D. B. (2009). Evaluation of Mindful Sport Performance Enhancement (MSPE): A new approach to promote flow in athletes. *Journal of Clinical Sport Psychology*, *3*(4), 334-356.

Kaviani, H., & Hatami, N. (2016). Link between mindfulness and personality-related factors including empathy, theory of mind, openness, pro-social behaviour and suggestibility.

Kay, A. A., & Skarlicki, D. P. (2020). Cultivating a conflict-positive workplace: How mindfulness facilitates constructive conflict management. *Organizational Behavior and Human Decision Processes*, *159*, 8-20.

Kersemaekers, W., Rupprecht, S., Wittmann, M., Tamdjidi, C., Falke, P., Donders, R., Speckens, A., & Kohls, N. (2018). A workplace mindfulness intervention may be associated with improved psychological well-being and productivity. A preliminary field study in a company setting. *Frontiers in psychology*, *9*, 195.

Khoury, B., Sharma, M., Rush, S. E., & Fournier, C. (2015). Mindfulness-based stress reduction for healthy individuals: A meta-analysis. *Journal of psychosomatic research*, *78*(6), 519-528.

King, E., & Badham, R. (2019). Leadership in uncertainty. *Organizational Dynamics*, *48*(4), 100674.

Kirkpatrick, D., & Kirkpatrick, J. (2006). *Evaluating training programs: The four levels*. Berrett-Koehler Publishers.

Klatt, M., Steinberg, B., & Duchemin, A.-M. (2015). Mindfulness in Motion (MIM): an onsite mindfulness based intervention (MBI) for chronically high stress work environments to increase resiliency and work engagement. *JoVE (Journal of Visualized Experiments)*(101), e52359.

Klatt, M. D., Buckworth, J., & Malarkey, W. B. (2009). Effects of low-dose mindfulness-based stress reduction (MBSR-ld) on working adults. *Health Education & Behavior*, *36*(3), 601-614.

Kline, T. (2005). *Psychological testing: A practical approach to design and evaluation*. Sage.

Kolb, D. A. (1984). The process of experiential learning. *Experiential learning: Experience as the source of learning and development*, 20-38.

Kraiger, K. (2008). Transforming our models of learning and development: Web-based instruction as enabler of third-generation instruction. *Industrial and organizational Psychology*, *1*(4), 454-467.

Kreplin, U., Farias, M., & Brazil, I. A. (2018). The limited prosocial effects of meditation: A systematic review and meta-analysis. *Scientific reports*, *8*(1), 1-10.

Kudesia, R. S. (2019). Mindfulness as metacognitive practice. *Academy of management review*, *44*(2), 405-423.

Kuhn, T. (1996). The Structure of Scientific Revolutions.(1962) University of Chicago Press: Chicago. In: IL.

Kuyken, W., Ball, S., Crane, C., Ganguli, P., Jones, B., Montero-Marin, J., Nuthall, E., Raja, A., Taylor, L., & Tudor, K. (2022). Effectiveness and cost-effectiveness of universal school-based mindfulness training compared with normal school provision in reducing risk of mental health problems and promoting well-being in adolescence: the MYRIAD cluster randomised controlled trial. *Evidence-based mental health*, *25*(3), 99-109.

Laloux, F., Poireaux, G.-N., & Blanchard, P. (2015). *Reinventing Organizations-Vers des communautés de travail inspirées*. Diateino.

Lance, C. E., Butts, M. M., & Michels, L. C. (2006). The sources of four commonly reported cutoff criteria: What did they really say? *Organizational research methods*, *9*(2), 202-220.

Langer, E. J., & Moldoveanu, M. (2000a). The construct of mindfulness. *Journal of social issues*, *56*(1), 1-9.

Langer, E. J., & Moldoveanu, M. (2000b). Mindfulness research and the future. *Journal of social issues*, *56*(1), 129-139.

Lau, M. A., Bishop, S. R., Segal, Z. V., Buis, T., Anderson, N. D., Carlson, L., Shapiro, S., Carmody, J., Abbey, S., & Devins, G. (2006). The Toronto mindfulness scale: Development and validation. *Journal of clinical psychology*, *62*(12), 1445-1467.

Ledesma, D., & Kumano, H. (2009). Mindfulness-based stress reduction and cancer: a meta-analysis. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, *18*(6), 571-579.

Lee, A. Y.-P., Chang, P.-C., & Chang, H.-Y. (2022). How workplace fun promotes informal learning among team members: a cross-level study of the relationship between workplace fun, team climate, workplace friendship, and informal learning. *Employee Relations: The International Journal*.

Lee, B., Collier, P. M., & Cullen, J. (2007). Reflections on the use of case studies in the accounting, management and organizational disciplines. *Qualitative*

Research in Organizations and Management: An International Journal, *2*(3), 169-178.

Leroy, H., Anseel, F., Dimitrova, N. G., & Sels, L. (2013). Mindfulness, authentic functioning, and work engagement: A growth modeling approach. *Journal of Vocational Behavior*, *82*(3), 238-247.

Levinson, D. B., Stoll, E. L., Kindy, S. D., Merry, H. L., & Davidson, R. J. (2014). A mind you can count on: validating breath counting as a behavioral measure of mindfulness. *Frontiers in psychology*, *5*, 1202.

Lewis, A. (1936). Problems of obsessional illness. In: SAGE Publications.

Li, W., Howard, M. O., Garland, E. L., McGovern, P., & Lazar, M. (2017). Mindfulness treatment for substance misuse: A systematic review and meta-analysis. *Journal of substance abuse treatment*, *75*, 62-96.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. *The Sage handbook of qualitative research*, *4*(2), 97-128.

Lindahl, J. R. (2015). Why right mindfulness might not be right for mindfulness. *Mindfulness*, *6*(1), 57-62.

Lippitt, G. L., Knowles, M. S., & Knowles, M. S. (1984). Andragogy in action: applying modern principles of adult learning.

Liu, S., Xin, H., Shen, L., He, J., & Liu, J. (2020). The influence of individual and team mindfulness on work engagement. *Frontiers in psychology*, *10*, 2928.

Lomas, T., Cartwright, T., Edginton, T., & Ridge, D. (2015). A qualitative analysis of experiential challenges associated with meditation practice. *Mindfulness*, *6*(4), 848-860.

Lomas, T., Medina, J. C., Ivtzan, I., Rupprecht, S., & Eiroa-Orosa, F. J. (2017). The impact of mindfulness on the wellbeing and performance of educators: A systematic review of the empirical literature. *Teaching and Teacher Education*, *61*, 132-141.

Lomas, T., Medina, J. C., Ivtzan, I., Rupprecht, S., & Eiroa-Orosa, F. J. (2019a). Mindfulness-based interventions in the workplace: An inclusive systematic review and meta-analysis of their impact upon wellbeing. *The Journal of Positive Psychology*, *14*(5), 625-640.

Lomas, T., Medina, J. C., Ivtzan, I., Rupprecht, S., & Eiroa-Orosa, F. J. (2019b). A systematic review and meta-analysis of the impact of mindfulness-based interventions on the well-being of healthcare professionals. *Mindfulness*, *10*, 1193-1216.

Lomas, T., Medina, J. C., Ivtzan, I., Rupprecht, S., Hart, R., & Eiroa-Orosa, F. J. (2017). The impact of mindfulness on well-being and performance in the workplace: an inclusive systematic review of the empirical literature. *European Journal of Work and Organizational Psychology*, *26*(4), 492-513.

Loucks, E. B., Crane, R. S., Sanghvi, M. A., Montero-Marin, J., Proulx, J., Brewer, J. A., & Kuyken, W. (2022). Mindfulness-Based Programs: Why, When, and

How to Adapt? *Global Advances in Health and Medicine*, *11*, 21649561211068805.

Luthans, F., & Davis, T. R. (1982). An idiographic approach to organizational behavior research: The use of single case experimental designs and direct measures. *Academy of management review*, *7*(3), 380-391.

Lutz, A., Slagter, H. A., Dunne, J. D., & Davidson, R. J. (2008). Attention regulation and monitoring in meditation. *Trends in cognitive sciences*, *12*(4), 163-169.

Mabey, C., & Knights, D. (2017). *Leadership matters: Finding voice, connection and meaning in the 21st century*. Routledge.

Mackenzie, M. J., Carlson, L. E., Munoz, M., & Speca, M. (2007). A qualitative study of self-perceived effects of mindfulness-based stress reduction (MBSR) in a psychosocial oncology setting. *Stress and Health: Journal of the International Society for the Investigation of Stress*, *23*(1), 59-69.

Maglione, M. A., Maher, A. R., Ewing, B., Colaiaco, B., Newberry, S., Kandrack, R., Shanman, R. M., Sorbero, M. E., & Hempel, S. (2017). Efficacy of mindfulness meditation for smoking cessation: A systematic review and meta-analysis. *Addictive behaviors*, *69*, 27-34.

Malpass, A., Carel, H., Ridd, M., Shaw, A., Kessler, D., Sharp, D., Bowden, M., & Wallond, J. (2012). Transforming the perceptual situation: a meta-ethnography of qualitative work reporting patients' experiences of mindfulness-based approaches. *Mindfulness*, *3*(1), 60-75.

Malterud, K. (2002). Reflexivity and metapositions: strategies for appraisal of clinical evidence. *Journal of evaluation in Clinical Practice*, *8*(2), 121-126.

Mardon, N., Richards, H., & Martindale, A. (2016). The effect of mindfulness training on attention and performance in national-level swimmers: An exploratory investigation. *The Sport Psychologist*, *30*(2), 131-140.

Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the value of an organization's learning culture: the dimensions of the learning organization questionnaire. *Advances in developing human resources*, *5*(2), 132-151.

Mcardle, K. L., & Reason, P. (2008). Action research and organization development. *Handbook of organization development*, 123-136.

McClintock, A. S., Rodriguez, M. A., & Zerubavel, N. (2019). The effects of mindfulness retreats on the psychological health of non-clinical adults: A meta-analysis. *Mindfulness*, *10*(8), 1443-1454.

McCown, D., Reibel, D., & Micozzi, M. S. (2016). *Resources for teaching mindfulness*. Springer.

McCown, D., Reibel, D., Micozzi, M. S., & SpringerLink (Online service). (2016). *Resources for Teaching Mindfulness An International Handbook*. Springer International Publishing,. http://www.ezproxy.is.ed.ac.uk/login?url=http://dx.doi.org/10.1007/978-3-319-30100-6

Meland, A., Ishimatsu, K., Pensgaard, A. M., Wagstaff, A., Fonne, V., Garde, A. H., & Harris, A. (2015). Impact of mindfulness training on physiological measures of stress and objective measures of attention control in a military helicopter unit. *The International Journal of Aviation Psychology*, *25*(3-4), 191-208.

Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education. Revised and Expanded from" Case Study Research in Education."*. ERIC.

Michie, S., Fixsen, D., Grimshaw, J. M., & Eccles, M. P. (2009). Specifying and reporting complex behaviour change interventions: the need for a scientific method. In (Vol. 4, pp. 1-6): BioMed Central.

Mills, C. W. (1959). The promise of sociology. *Seeing ourselves*, 1-5.

Montero-Marin, J., Allwood, M., Ball, S., Crane, C., De Wilde, K., Hinze, V., Jones, B., Lord, L., Nuthall, E., & Raja, A. (2022). School-based mindfulness training in early adolescence: what works, for whom and how in the MYRIAD trial? *Evidence-based mental health*, *25*(3), 117-124.

Moore, A., & Malinowski, P. (2009). Meditation, mindfulness and cognitive flexibility. *Consciousness and cognition*, *18*(1), 176-186.

Moore, M. G. (1989). Three types of interaction.

MORGAN, B. (2014). Becoming a critical language teacher: a reflexive journey. *Revista Diálogos Interdisciplinares*, *1*(1), 21-32.

Morgan, P., Simpson, J., & Smith, A. (2015). Health care workers' experiences of mindfulness training: a qualitative review. *Mindfulness*, *6*, 744-758.

Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: Extrarole efforts to initiate workplace change. *Academy of management Journal*, *42*(4), 403-419.

Morton, S. (2015). Progressing research impact assessment: A 'contributions' approach. *Research Evaluation*, *24*(4), 405-419.

Mrazek, A. J., Mrazek, M. D., Cherolini, C. M., Cloughesy, J. N., Cynman, D. J., Gougis, L. J., Landry, A. P., Reese, J. V., & Schooler, J. W. (2019). The future of mindfulness training is digital, and the future is now. *Current opinion in psychology*, *28*, 81-86.

Neil, R., Hanton, S., & Mellalieu, S. D. (2013). Seeing things in a different light: Assessing the effects of a cognitive-behavioral intervention upon the further appraisals and performance of golfers. *Journal of Applied Sport Psychology*, *25*(1), 106-130.

Nickols, F. W. (2005). Why a stakeholder approach to evaluating training. *Advances in developing human resources*, *7*(1), 121-134.

Niemiec, C. P., Brown, K. W., Kashdan, T. B., Cozzolino, P. J., Breen, W. E., Levesque-Bristol, C., & Ryan, R. M. (2010). Being present in the face of existential threat: The role of trait mindfulness in reducing defensive

responses to mortality salience. *Journal of personality and social psychology*, *99*(2), 344.

Noe, R. A., & Colquitt, J. A. (2002). Planning for training impact: Principles of training effectiveness. *Creating, implementing, and managing effective training and development*, 53-79.

Oleinik, A. (2011). Mixing quantitative and qualitative content analysis: Triangulation at work. *Quality & Quantity*, *45*(4), 859-873.

Oswick, C., Fleming, P., & Hanlon, G. (2011). From borrowing to blending: Rethinking the processes of organizational theory building. *Academy of management review*, *36*(2), 318-337.

Page, J., & Thelwell, R. (2013). The value of social validation in single-case methods in sport and exercise psychology. *Journal of Applied Sport Psychology*, *25*(1), 61-71.

Park, S., & Park, S. (2019). Employee adaptive performance and its antecedents: Review and synthesis. *Human Resource Development Review*, *18*(3), 294-324.

Park, Y., Lim, D. H., Kim, W., & Kang, H. (2020). Organizational support and adaptive performance: The revolving structural relationships between job crafting, work engagement, and adaptive performance. *Sustainability*, *12*(12), 4872.

Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of applied psychology*, *91*(3), 636.

Parsons, C. E., Jensen, K. L., Roepstorff, A., Fjorback, L. O., & Linehan, C. (2019). Designing technology tools to support engagement in mindfulness-based interventions: an analysis of teacher and student experiences. *Digital Health*, *5*, 2055207619868550.

Peirce, C. S. (1972). *Charles S. Peirce: The Essential Writings*. Prometheus Books.

Peterson, C., Ruch, W., Beermann, U., Park, N., & Seligman, M. E. (2007). Strengths of character, orientations to happiness, and life satisfaction. *The Journal of Positive Psychology*, *2*(3), 149-156.

Ployhart, R. E., & Bliese, P. D. (2006). Individual adaptability (I-ADAPT) theory: Conceptualizing the antecedents, consequences, and measurement of individual differences in adaptability. In *Understanding adaptability: A prerequisite for effective performance within complex environments*. Emerald Group Publishing Limited.

Prasek, A. (2015). *Randomized controlled trial to evaluate a self-guided, web-based mindfulness program for stress reduction and wellbeing promotion* University of Minnesota].

Pulakos, E. D., Arad, S., Donovan, M. A., & Plamondon, K. E. (2000). Adaptability in the workplace: Development of a taxonomy of adaptive performance. *Journal of applied psychology*, *85*(4), 612.

Purser, R. (2019). *McMindfulness: How mindfulness became the new capitalist spirituality*. Repeater.

Purser, R. E. (2018). Critical perspectives on corporate mindfulness. In (Vol. 15, pp. 105-108): Taylor & Francis.

Rangel, B., Chung, W., Harris, T. B., Carpenter, N. C., Chiaburu, D. S., & Moore, J. L. (2015). Rules of engagement: the joint influence of trainer expressiveness and trainee experiential learning style on engagement and training transfer. *International Journal of Training and Development*, *19*(1), 18-31.

Reb, J., Narayanan, J., & Ho, Z. W. (2015). Mindfulness at work: Antecedents and consequences of employee awareness and absent-mindedness. *Mindfulness*, *6*(1), 111-122.

Rees, B. (2017). The Use of Mindfulness in a Traumatic VUCA World. In *Managing VUCA Through Integrative Self-Management* (pp. 193-206). Springer.

Reitz, M. (2014). How does Martin Buber's concept of I-Thou dialogue inform the theory and practice of relational leadership?

Reitz, M., Waller, L., Chaskalson, M., Olivier, S., & Rupprecht, S. (2020). Developing leaders through mindfulness practice. *Journal of Management Development*.

Resnick, S., Foster, C., & Woodall, T. (2014). Exploring the UK high street retail experience: is the service encounter still valued? *International Journal of Retail & Distribution Management*.

Reynolds, L. M., Bissett, I. P., Porter, D., & Consedine, N. S. (2017). A brief mindfulness intervention is associated with negative outcomes in a randomised controlled trial among chemotherapy patients. *Mindfulness*, *8*(5), 1291-1303.

Rhodes, C., & Beneicke, S. (2002). Coaching, mentoring and peer-networking: Challenges for the management of teacher professional development in schools. *Journal of in-service education*, *28*(2), 297-310.

Rice, V. J., Houston, F. S., & Schroeder, P. J. (2017). The relationship between mindful awareness and cognitive performance among US military service members and veterans. Proceedings of the Human Factors and Ergonomics Society Annual Meeting,

Rietschel, C. H. (2016). *Quantifying barriers to meditation as a health behavior: Exploratory and confirmatory factor analysis of the determinants of meditation practice inventory* University of Maryland, College Park].

Roberts. (2022). *School mindfulness lessons don't work for teenages, study says*.

Rorty, R. (1982). *Consequences of pragmatism: Essays, 1972-1980*. U of Minnesota Press.

Rosenberg, J. P., & Yates, P. M. (2007). Schematic representation of case study research designs. *Journal of advanced nursing*, *60*(4), 447-452.

Rosenkranz, M. A., Dunne, J. D., & Davidson, R. J. (2019). The next generation of mindfulness-based intervention research: what have we learned and where are we headed? *Current opinion in psychology*, *28*, 179-183.

Rupprecht, S., Falke, P., Kohls, N., Tamdjidi, C., Wittmann, M., & Kersemaekers, W. (2019). Mindful leader development: How leaders experience the effects of mindfulness training on leader capabilities. *Frontiers in psychology*, *10*, 1081.

Rupprecht, S., Koole, W., Chaskalson, M., Tamdjidi, C., & West, M. (2019). Running too far ahead? Towards a broader understanding of mindfulness in organisations. *Current opinion in psychology*, *28*, 32-36.

Russell, L., Orellana, L., Ugalde, A., Milne, D., Krishnasamy, M., Chambers, R., & Livingston, P. M. (2018). Exploring knowledge, attitudes, and practice associated with meditation among patients with melanoma. *Integrative cancer therapies*, *17*(2), 237-247.

Rycroft-Malone, J., McCormack, B., Hutchinson, A. M., DeCorby, K., Bucknall, T. K., Kent, B., Schultz, A., Snelgrove-Clarke, E., Stetler, C. B., & Titler, M. (2012). Realist synthesis: illustrating the method for implementation research. *Implementation Science*, *7*(1), 1-10.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, *69*(4), 719.

Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological science in the public interest*, *13*(2), 74-101.

Salas, E., Weaver, S. J., & Shuffler, M. L. (2012). *Learning, training, and development in organizations*. Oxford University Press.

Salvietti, G., Ziliani, C., Teller, C., Ieva, M., & Ranfagni, S. (2022). Omnichannel retailing and post-pandemic recovery: building a research agenda. *International Journal of Retail & Distribution Management*.

Santorelli, S. (2014). *Mindfulness-based stress reduction (MBSR): Standards of practice*. Center for Mindfulness in Medicine, Health Care & Society, University of ….

Sauer, C., Sheppes, G., Lackner, H. K., Arens, E. A., Tarrasch, R., & Barnow, S. (2016). Emotion regulation choice in female patients with borderline personality disorder: Findings from self-reports and experimental measures. *Psychiatry Research*, *242*, 375-384.

Sauer, S., & Kohls, N. (2011). Mindfulness in leadership: does being mindful enhance leaders' business success? In *Culture and neural frames of cognition and communication* (pp. 287-307). Springer.

Scharmer, O. (2018). *The essentials of Theory U: Core principles and applications*. Berrett-Koehler Publishers.

Schell, S., & Bischof, N. (2022). Change the way of working. Ways into self-organization with the use of Holacracy: An empirical investigation. *European Management Review*, *19*(1), 123-137.

Schuyler, K. G., Taylor, M. O., & Wolberger, O. M. (2018). Bringing mindfulness and joy to work: Action research on organizational change. In *Handbook of personal and organizational transformation* (pp. 1193-1217). Springer.

Schwarzer, R., & Schmitz, G. S. (1999). Kollektive Selbstwirksamkeitserwartung von Lehrern: eine Langsschnittstudie in zehn Bundeslandern collective efficacy of teachers: a longitudinal study in ten German states. *Zeitschrift fur Sozialpsychologie*, *30*(4), 262-274.

Scott-Hamilton, J., Schutte, N. S., & Brown, R. F. (2016). Effects of a mindfulness intervention on sports-anxiety, pessimism, and flow in competitive cyclists. *Applied Psychology: Health and Well-Being*, *8*(1), 85-103.

Sears, S. R., Kraus, S., Carlough, K., & Treat, E. (2011). Perceived benefits and doubts of participants in a weekly meditation study. *Mindfulness*, *2*(3), 167-174.

Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of applied psychology*, *84*(3), 416.

Selener, J. D. (1992). *Participatory action research and social change: Approaches and critique*. Cornell University.

Shahbaz, W., & Parker, J. (2021). Workplace mindfulness: An integrative review of antecedents, mediators, and moderators. *Human Resource Management Review*, 100849.

Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of clinical psychology*, *62*(3), 373-386.

Shiba, K., Nishimoto, M., Sugimoto, M., & Ishikawa, Y. (2015). The association between meditation practice and job performance: A cross-sectional study. *PLOS one*, *10*(5), e0128287.

Shiffman, S., Stone, A. A., & Hufford, M. R. (2008). Ecological momentary assessment. *Annu. Rev. Clin. Psychol.*, *4*, 1-32.

Shin, Y., & Kim, M.-J. (2015). Antecedents and mediating mechanisms of proactive behavior: Application of the theory of planned behavior. *Asia Pacific Journal of Management*, *32*(1), 289-310.

Siebert, J., & Kunz, R. (2016). Developing and validating the multidimensional proactive decision-making scale. *European Journal of Operational Research*, *249*(3), 864-877.

Siegel, D. J. (2007). *The mindful brain: Reflection and attunement in the cultivation of well-being (Norton series on interpersonal neurobiology)*. WW Norton & Company.

Siegel, S. M., & Kaemmerer, W. F. (1978). Measuring the perceived support for innovation in organizations. *Journal of applied psychology*, *63*(5), 553.

Singh, N. N., Singh, S. D., Sabaawi, M., Myers, R. E., & Wahler, R. G. (2006). Enhancing treatment team process through mindfulness-based mentoring in an inpatient psychiatric hospital. *Behavior Modification*, *30*(4), 423-441.

Sitzmann, T., & Johnson, S. K. (2012). The best laid plans: Examining the conditions under which a planning intervention improves learning and reduces attrition. *Journal of applied psychology*, *97*(5), 967.

Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International review of sport and exercise psychology*, *11*(1), 101-121.

Smith, C., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of applied psychology*, *68*(4), 653.

Soler, J., Cebolla, A., Feliu-Soler, A., Demarzo, M. M., Pascual, J. C., Baños, R., & García-Campayo, J. (2014). Relationship between meditative practice and self-reported mindfulness: the MINDSENS composite index. *PLOS one*, *9*(1), e86622.

Sparkes, A. C. (1998). Validity in qualitative inquiry and the problem of criteria: Implications for sport psychology. *The Sport Psychologist*, *12*(4), 363-386.

Strauss, C., Cavanagh, K., Oliver, A., & Pettman, D. (2014). Mindfulness-based interventions for people diagnosed with a current episode of an anxiety or depressive disorder: a meta-analysis of randomised controlled trials. *PLOS one*, *9*(4), e96110.

Strecher, V. J., McEvoy DeVellis, B., Becker, M. H., & Rosenstock, I. M. (1986). The role of self-efficacy in achieving health behavior change. *Health education quarterly*, *13*(1), 73-92.

Taylor, M., Hageman, J. R., & Brown, M. (2016). A mindfulness intervention for residents: relevance for pediatricians. *Pediatric annals*, *45*(10), e373-e376.

Teasdale, J. D., Moore, R. G., Hayhurst, H., Pope, M., Williams, S., & Segal, Z. V. (2002). Metacognitive awareness and prevention of relapse in depression: empirical evidence. *Journal of consulting and clinical psychology*, *70*(2), 275.

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation. *Health and Quality of life Outcomes*, *5*(1), 1-13.

Teper, R., Segal, Z. V., & Inzlicht, M. (2013). Inside the mindful mind: How mindfulness enhances emotion regulation through improvements in executive control. *Current Directions in Psychological Science*, *22*(6), 449-454.

Tetley, A., Jinks, M., Huband, N., & Howells, K. (2011). A systematic review of measures of therapeutic engagement in psychosocial and psychological treatment. *Journal of clinical psychology*, *67*(9), 927-941.

Tews, M. J., Michel, J. W., & Stafford, K. (2013). Does fun pay? The impact of workplace fun on employee turnover and performance. *Cornell Hospitality Quarterly*, *54*(4), 370-382.

Tews, M. J., & Noe, R. A. (2019). Does training have to be fun? A review and conceptual model of the role of fun in workplace training. *Human Resource Management Review*, *29*(2), 226-238.

Thielmann, I., & Pfattheicher, S. (2022). Editorial overview: Current and new directions in the study of prosociality. *Current opinion in psychology*, *47*, 101355-101355.

Towler, A. J., & Dipboye, R. L. (2001). Effects of trainer expressiveness, organization, and trainee goal orientation on training outcomes. *Journal of applied psychology*, *86*(4), 664.

Treleaven, D. A. (2018). *Trauma-sensitive mindfulness: Practices for safe and transformative healing*. WW Norton & Company.

Troise, C., Corvello, V., Ghobadian, A., & O'Regan, N. (2022). How can SMEs successfully navigate VUCA environment: The role of agility in the digital transformation era. *Technological Forecasting and Social Change*, *174*, 121227.

Tsoukas, H. (2005). Do we really understand tacit knowledge. *Managing knowledge: an essential reader*, *107*, 1-18.

Vago, D. R., & Silbersweig, D. A. (2012). Self-awareness, self-regulation, and self-transcendence (S-ART): a framework for understanding the neurobiological mechanisms of mindfulness. *Frontiers in human neuroscience*, *6*, 296.

van Berkel, J., Boot, C. R., Proper, K. I., Bongers, P. M., & van der Beek, A. J. (2014). Effectiveness of a worksite mindfulness-related multi-component health promotion intervention on work engagement and mental health: results of a randomized controlled trial. *PLOS one*, *9*(1), e84118.

Van Dam, N. T., Van Vugt, M. K., Vago, D. R., Schmalzl, L., Saron, C. D., Olendzki, A., Meissner, T., Lazar, S. W., Kerr, C. E., & Gorchov, J. (2018). Mind the hype: A critical evaluation and prescriptive agenda for research on mindfulness and meditation. *Perspectives on psychological science*, *13*(1), 36-61.

Van Lange, P. A., & Van Doesum, N. J. (2015). Social mindfulness and social hostility. *Current opinion in behavioral sciences*, *3*, 18-24.

von Thiele Schwarz, U., Nielsen, K., Edwards, K., Hasson, H., Ipsen, C., Savage, C., Simonsen Abildgaard, J., Richter, A., Lornudd, C., & Mazzocato, P. (2021). How to design, implement and evaluate organizational interventions for maximum impact: The Sigtuna Principles. *European Journal of Work and Organizational Psychology*, *30*(3), 415-427.

Vonderlin, R., Biermann, M., Bohus, M., & Lyssenko, L. (2020). Mindfulness-based programs in the workplace: a meta-analysis of randomized controlled trials. *Mindfulness*, *11*(7), 1579-1598.

Wachs, K., & Cordova, J. V. (2007). Mindful relating: Exploring mindfulness and emotion repertoires in intimate relationships. *Journal of marital and family therapy*, *33*(4), 464-481.

Walach, H., Buchheld, N., Buttenmüller, V., Kleinknecht, N., & Schmidt, S. (2006). Measuring mindfulness—the Freiburg mindfulness inventory (FMI). *Personality and individual differences*, *40*(8), 1543-1555.

Wallmark, E., Safarzadeh, K., Daukantaitė, D., & Maddux, R. E. (2013). Promoting altruism through meditation: an 8-week randomized controlled pilot study. *Mindfulness*, *4*(3), 223-234.

Weick, K., Sutcliffe, K., & Obstfeld, D. (2008). Organizing for high reliability: Processes of collective mindfulness. Crisis management, 3 (1), 81–123. In.

Weick, K. E., & Roberts, K. H. (1993). Collective mind in organizations: Heedful interrelating on flight decks. *Administrative science quarterly*, 357-381.

Weick, K. E., & Sutcliffe, K. M. (2006). Mindfulness and the quality of organizational attention. *Organization science*, *17*(4), 514-524.

Wight, D., Wimbush, E., & Jepson, R. (2014). Six Steps in Quality Intervention Development (6SQUID) Daniel Wight. *European Journal of Public Health*, *24*(suppl_2).

Williams, A.-l., Dixon, J., McCorkle, R., & Van Ness, P. H. (2011). Determinants of meditation practice inventory: development, content validation, and initial psychometric testing. *Alternative Therapies in Health and Medicine*, *17*(5), 16.

Williams, E. C., & Polito, V. (2022). Meditation in the Workplace: Does Mindfulness Reduce Bias and Increase Organisational Citizenship Behaviours? *Frontiers in psychology*, *13*.

Wilson, J. (2014). *Mindful America: Meditation and the mutual transformation of Buddhism and American culture*. Oxford University Press.

Wolever, R. Q., Bobinet, K. J., McCabe, K., Mackenzie, E. R., Fekete, E., Kusnick, C. A., & Baime, M. (2012). Effective and viable mind-body stress reduction in the workplace: a randomized controlled trial. *Journal of occupational health psychology*, *17*(2), 246.

Wyatt, C., Harper, B., & Weatherhead, S. (2014). The experience of group mindfulness-based interventions for individuals with mental health difficulties: A meta-synthesis. *Psychotherapy Research*, *24*(2), 214-228.

Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). sage.

Young, K. S., van der Velden, A. M., Craske, M. G., Pallesen, K. J., Fjorback, L., Roepstorff, A., & Parsons, C. E. (2018). The impact of mindfulness-based interventions on brain activity: A systematic review of functional magnetic resonance imaging studies. *Neuroscience & Biobehavioral Reviews*, *84*, 424-433.

Zeidan, F., Emerson, N. M., Farris, S. R., Ray, J. N., Jung, Y., McHaffie, J. G., & Coghill, R. C. (2015). Mindfulness meditation-based pain relief employs

different neural mechanisms than placebo and sham mindfulness meditation-induced analgesia. *Journal of Neuroscience*, *35*(46), 15307-15325.