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*The role of mindfulness in the development of resilience in entrepreneurs*

RIVOALLAN, Glenda

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# **The Role of Mindfulness in the Development of Resilience in Entrepreneurs**

**Glenda Rivoallan**

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## **Abstract**

### **The Role of Mindfulness in the Development of Resilience in Entrepreneurs**

The development of resilience in entrepreneurs is viewed as a potential answer to coping with the increasingly competitive and uncertain environments they operate within. On the premise that resilience can be both taught and learnt, there has been a growth in interest in the role of holistic practices such as mindfulness meditation. Kabat-Zinn's mindfulness-based stress reduction (MBSR), Teasdale's mindfulness-based cognitive therapy (MBCT) and Hayes Acceptance Commitment Therapy (ACT) are three of the most commonly used by those seeking to practice, theorise or research mindfulness across multiple contexts.

The primary aim of this study was to pilot the effectiveness of an 8-week combined MBSR/MBCT intervention informed by ACT on the psychological resilience of entrepreneurs. From reviewing the literature, the author puts forward the proposal that dimensions of the self (self-awareness and self-knowledge) are the underexplored linkages between both mindfulness and resilience and that these are improved through mindfulness skills building. 19 entrepreneurs participated in a one-day workshop, 8 weekly 2.5 hour sessions and undertook to practice mindfulness daily. They completed pre, during and post intervention measures: The Connor Davidson resilience scale and the Five-facet mindfulness questionnaire. Profile of mood, perceived stress and satisfaction with life were also measured as a means of assessing psychological wellbeing as secondary outcome measures.

Findings demonstrated a statistically significant improvement in mindfulness, resilience and aspects of psychological well-being as a result of participation in the intervention. Consistent with other MBSR/MBCT intervention findings (Chaskalson, 2011), this experimental study provides further support for the effectiveness of Kabat Zinn's (2003) secularised mindfulness intervention protocol for increasing resilience in the entrepreneur as a result of development of the self (self-awareness and self-knowledge). The study also offers preliminary support for the transformational potential of secularised mindfulness programmes informed by ACT in developing virtue ethics through the teaching of the moral foundations inherent in the Buddhist roots of the practice.

The development of resilience and mindfulness is important to the entrepreneur in order to help them cope with and manage the complex business environment they operate within whilst maintaining positive mental health. However, mindfulness practice based on a simple input/output model is to denature the practice, thus the development of programmes of mindfulness for entrepreneur's where the centrality of the ethical dimension is foregrounded is clearly paramount. If the entrepreneur is to gain both individual and social transformation and if we are to avoid a reductionist commodified form of the practice then an educational function of MBIs needs to be in the development of the ethical dimension.

## **Dedication**

First and foremost, to my wonderful husband Jean and son, Kaden, for your unwavering support. You have always been steadfast in encouraging me even when I doubted myself.

To my friends for always being there, and for the support you have given me with Kaden to give me the time and space I needed to get this work done. To my best friend Kate who always asks me how I am getting on and for showing such an interest in this uniquely wonderful adventure I am on.

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Thanks from the bottom of my heart.

Glenda Rivoallan

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While this work is of considerable significance to me, I do hope that other entrepreneurs may find something of significance for them within the fold of its covers.

I thank Highlands College for giving me the opportunity to go on this life enriching DBA journey. I will continue to benefit from this experience, as Einstein said,

*“Education is what remains after one has forgotten what one has learned.”* Albert Einstein.

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## **GLOSSARY OF TERMS**

**ACT** – Acceptance commitment therapy

**Entrepreneur** - a person who sets up a business or businesses, taking on financial risks in the hope of profit.

**Mindfulness** - awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment.

**MBSR** – Mindfulness based stress reduction.

**MBCT** – Mindfulness based cognitive therapy.

**Resilience** - a dynamic and evolving process through which entrepreneurs acquire the knowledge, abilities and skills to help them face the uncertain future with a positive attitude, with creativity and optimism, and by relying on their own resources.

**Affective domain** - the experience of positive and negative emotions (e.g. positive and negative affect).

**Cognitive domain** - constructs that reflect individual's thoughts, beliefs and evaluations of themselves (i.e. self-efficacy and self-esteem) and their interpretation of the situation (i.e. perceived control).

**Self-regulatory domain** - the process of self-regulation and strategies for coping with stress.

**Psychological wellbeing** - social, psychological, and physical factors that contribute to an individual's psychological wellbeing, contentment, and happiness.

**Self-awareness** - a consciousness of oneself as an immediate subject of experience, un-extended in time.

**Self-knowledge** - personal identity and continuity across time as well as conceptual thought.

## CHAPTER 1 INTRODUCTION

This introductory chapter presents the rationale for research into entrepreneurial resilience and why mindfulness is an important concept in furthering our understanding of how best to nurture entrepreneurial resilience. The author provides a brief background to some relevant academic literature about ‘resilience’ and how and why entrepreneurs in particular may benefit from developing internal resources such as mindfulness. This chapter also states the projects purpose and puts forward the overall goal and key aims the thesis intends to meet. To conclude the introductory chapter a summary of the structure of the thesis is outlined.

### 1.1 Rationale and background to the project

“Nanakorobi yaoki”: Japanese Proverb

*“fall seven times, stand up eight”*

This project derives from the personal and professional experience of the author, who views a key aspect of entrepreneurship as the ability of entrepreneurs to enact the notion of “resilience” or indomitable spirit alluded to in the proverb above. This is because entrepreneurs – more than other professional groups – are likely to experience failure repeatedly (Freeman, 2015). Resilience as “an ability to go on with life, or to continue living a purposeful life, after hardship or adversity” (Tedeschi & Calhoun, 2004, p.2) has therefore taken a central role in entrepreneurship research. Resilience has been established as an important aspect in entrepreneurs being able to recover from setbacks (Cope, 2011; Hayward et al., 2010) and in what make some entrepreneurs more resilient than others (Fischer, 2016; Wright & Stigliani, 2013), but there is a paucity of research on and how resilience can be best developed and nurtured (Bullough & Renko, 2013).

Entrepreneurs may often experience high levels of stress due to the increasingly competitive and uncertain environments they operate within (Ayala & Manzano, 2014). Challenging circumstances and the adoption of the behaviour patterns of the surrounding culture minimise the probability of self-care (Freeman as cited in Bruder, 2014). In complicating matters, as well as potentially neglecting their health, many entrepreneurs, harbor secret demons such as fear of failure, lack of belief, search for perfection (Loder, 2014). In particular, new entrepreneurs struggle through moments of near-debilitating anxiety and despair, times when it seems that everything might fall apart (Bruder, 2014).

Challenging market forces such as (financial risk, severe competition, unpredictable environment) combined with self-doubt can result in entrepreneurs being vulnerable to mental health issues (Freeman, 2015). Often however, rather than showing vulnerability, entrepreneurs have practiced what social psychiatrists call impression management (Piwinger & Ebert, 2001; Goffman, 1959) also known as "*fake it till you make it*" (Nagy et al., 2012). This can come at a psychological price with entrepreneurs reporting higher levels of mood vulnerability, anxiety and depression than employees (Freeman, 2015; Bruder, 2014). A lack of recognition or self-awareness may lead entrepreneurs to march on regardless engaging with unhealthy automatic behavioural patterns (Ryan & Deci, 2000) which can lead to burnout or soul sickness (Wright, 2010) as a result of permanent stress (Cartwright & Cooper, 1996). Many researchers therefore, view the development of resilience in individuals (Mowbray, 2011; Jackson, Firtko & Edenborough, 2007; Neenan, 2009), specifically entrepreneurs, as a potential response to the stress associated with contemporary lifestyles and workplaces (Bullough & Renko, 2014).

In research accounts, resilience is not viewed as a static construct, but rather as a dynamic adaptation process in that it changes over time and can be further developed and encouraged (Brewer & Hewstone, 2004). It is, therefore reasonable to assume that the resilience of the entrepreneur changes, also over time and depending on context (Ayala & Manzano, 2014). The empirical evidence to support the idea that resilience can be learned (Coutu, 2002) and strengthened (Davda, 2015) is growing, and this project contributes to this

understanding of entrepreneurial resilience, by focusing in particular on the coping strategy of mindfulness.

Mindfulness as an idea, approach and practice has seen an immense increase in popularity and also raised considerable academic interest (Foureur et al., 2013). For example, Kabat-Zinn's mindfulness-based stress reduction – MBSR, (1979), Barnard and Teasdale's mindfulness-based cognitive behavioural therapy - MBCT (1991) and Hayes Acceptance Commitment Therapy – ACT (1982) are the most commonly used cognitive and behavioural therapy approaches (Ost, 2008) used by those seeking to practice, theorize or research the concept of mindfulness.

Siegel (2007) claimed that mindfulness practice is scientifically proven to develop a long-term state of resilience by enhancing physical, mental and social wellbeing. Advocates of mindfulness “paying attention in a particular way: on purpose, in the present moment and non-judgementally” (Kabat-Zinn, 1994; p.4); have pronounced the benefits and the scholarly interest in mindfulness has generated multiple lines of inquiry ranging from psychology (Baer, 2003; Hulsheger et al., 2013) to neuroscience (Davidson et al., 2003; Lazar et al., 2005; Lutz et al., 2008; Pagnoni & Cekic, 2007) to business leadership (Dhiman, 2009; Langer & Moldoveanu, 2000) to name a few. A sizeable body of work in this area focuses on linkages between mindfulness and psychological & physical wellbeing (Brown, Ryan & Creswell, 2007; Anderson et al, 2007). For example, research indicates that mindfulness is positively related to life satisfaction, vitality and interpersonal quality and negatively related to stress, anxiety and depression (Brown, Ryan & Creswell, 2007; Glomb et al., 2011). In accounting for these effects, it is argued that mindfulness empowers people to view events more objectively and impassively and enables them to regulate their thoughts, emotions and physiological reactions more effectively (Lakey et a.l, 2007; Mascampio & Baumeister, 2007).

In a different vein, a more limited but expanding body of work examines the effects mindfulness can have on task performance and indicates that mindfulness enhances judgement accuracy (Kiken & Shook, 2011), cognitive flexibility (Moore & Malinowski, 2009) and promotes executive functioning (Zeidan et al., 2010).

Such findings suggest that indeed, mindfulness is beneficial in the development of resilience. Recent research has also established the effectiveness of mindfulness on subjective wellbeing and that improved resilience may play an important role in mindfulness exerting its beneficial effects (Bajaj, 2016).

Mindfulness is not only an object of interest for academics, but has been acknowledged as relevant for work and business. One year after the Mindfulness All-Party Parliamentary Group (MAPPG) released its seminal Mindful Nation UK report, The Mindfulness Initiative (2016), launched a new publication: 'Building the Case for Mindfulness in the Workplace'. The evidence presented outlines a case for the further investigation of resilience and mindfulness and how to implement, best-practice mindfulness training in the workplace and encourages researchers to develop the evidence base.

There is however concern that popularised Western versions of mindfulness practice are radically different from the values and assumptions of the indigenous psychologies of Buddhism from where these practices came; referred to by some critics as the McMindfulness movement (Fisher, 2010; Hyland, 2017; Singh et al. 2008). Dawson and Turnbull (2006) express concern that a secular meditation practice in its reductionist form and disconnected from the traditional Buddhist framework could present a number of issues. The most dangerous threats being: deracination (uprooting selected features of mindfulness and meditation from their grounding in Eastern spiritual disciplines), instrumentalization (mindfulness to achieve specific objectives like a happier and more productive workplace) and secularisation (practising mindfulness and meditation in a non-religious and non-scared setting). These issues raise challenging questions around the utility of modern mindfulness practices which will be considered in Chapter 2.

## **1.2 Statement of purpose and aims**

Based on the premise that resilience, can be viewed as a positive response to coping with the increasingly competitive and uncertain environments that entrepreneurs operate within (Ayala & Manzano, 2014) and that it can be both taught and learnt (Coutu, 2002), the research purpose emerged. The research therefore sought to explore the relationship between resilience and mindfulness in the context of entrepreneurs and to explore this through the running of a particular mindfulness training intervention.

The purpose is operationalised by piloting the effectiveness of an eight-week mindfulness intervention in the development of psychological resilience in a sample of entrepreneurs. Using a combined mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT) approach informed by Acceptance Commitment Therapy (ACT), the study adopts a pre and post intervention design. The author puts forward the proposal that building skill in mindfulness through training leads to improvements in dimensions of the self, including self-awareness and self-knowledge, which develops the 3 domains of resilience (Robson, 1993). Furthermore, the author posits that here in the notion of self-lie the underexplored linkages between both mindfulness and resilience.

In pursuit of this primary purpose the research has 3 inter-related aims:

1. To provide a critical appraisal of the theoretical conceptualisation of mindfulness and resilience in entrepreneurs. This is done to, better understand the construct of both resilience and mindfulness from a psychological perspective and to establish conceptual bridges between them.
2. To explore the potential use of mindfulness in the development of resilience in entrepreneurs. A few scholars have examined the potential link between mindfulness and resilience (Foureur et al., 2013; Brown & Ryan, 2013; Grafton et al., 2010; Thompson, Arnkoff & Glass, 2011) but not within the entrepreneurship literature.

3. To design a mindfulness intervention specifically tailored for entrepreneurs and empirically assess its effectiveness for this cohort.

### **1.3 Structure of the thesis**

This first chapter presented the rationale for examining resilience in entrepreneurs and the potential for mindfulness and mindfulness training in the development of psychological resilience. Chapter 2 provides a critical review of entrepreneurship, resilience and mindfulness literature in order to inform and develop the research questions, theoretical framework and hypotheses. Chapter 3 explains the methods utilised within the study and provides detail on the intervention itself. Chapter 4 outlines the quantitative results from the MBSR/MBCT intervention forming the major phase of the empirical work. Chapter 5 outlines key themes derived from the qualitative data and is a subsidiary piece to the main quantitative piece. Chapter 6 presents a discussion of all (quantitative and qualitative) findings against the literature in Chapter 2. Chapter 7 concludes by summarising the study's key contributions from both a knowledge and practice perspective and provides limitations and recommendations for further research.

## **CHAPTER 2            A REVIEW OF THE LITERATURE**

This chapter provides a critical review of literature relating to resilience and mindfulness in the context of entrepreneurs in order to outline the theoretical framework and hypotheses for the study. Firstly, the chapter sets the scene through a discussion of resilience; its connection to psychological well-being and its importance for entrepreneurs in particular. Second, the chapter provides a review of the literature on mindfulness in an attempt to shed light on the mindfulness-resilience link and the conceptual bridges that exist between them. Both these sections provide also an analysis of how both constructs have evolved within the research field, how they will be operationalized in this study and highlight aspects of both constructs which put them on a continuum together. The third part of this chapter outlines why dimensions of the self, and more specifically self-awareness and self-knowledge may be the under-theorized link between mindfulness and resilience. To conclude the chapter, the main discussion points in the studies theory development are summarised.

### **2.1 Entrepreneurs, entrepreneurship and the importance of resilience and psychological well-being**

There appears to be a dichotomous central debate in relation to the notion of entrepreneurs with mainstream definitions on one hand seeing them as the economic actors who fuel the offering of needed and wanted goods and services, and are the “greasing agents that spin the economies wheels” (Bullough & Renko, 2013, p.343) and on the other as agents of societal change grounded in society working for love and for free (Martin & Osberg, 2007). However, the reality is that concepts and perceptions often don’t tell the whole story as it unfolds in practice. The author suggests that the idea that entrepreneurs are either rational mechanistic economic actors or that all economic activities have a social implication is somewhat over-simplified. This reductionist definition of the robotic nature of the entrepreneur being an ‘economic man’ or having an inherent moral

dimension as 'social do-gooder' has been criticised for being an overly romantic view of entrepreneurship and denies major aspects of most entrepreneurs lived experiences (Spear, 2006). A more rigorous analysis of the pluralistic dimensions of entrepreneurship and the potential impact (positive and negative) said entrepreneurial activities have on entrepreneurs is worthy of further scrutiny. Entrepreneurs are individuals who as human beings have thoughts, feelings and emotions and who may have very different motivations for becoming an entrepreneur. Regardless of motivation, it is thought that as many as 50% of entrepreneurs are attracted to a suboptimal adverse environment seeing imbedded in it an opportunity to provide a new solution, product, service or process (Martin & Osberg, 2007). However, this brings with it pressure and experiences which having being exposed to over a long period of time may make the entrepreneur susceptible to high levels of stress (Bruder, 2014). Recent research on emerging businesses indicates that the ability to effectively manage the human side of the business plays a critical role in the success of a new venture (Boren, 2010). There is no doubt that the term 'entrepreneur' is open to interpretation and somewhat more complex than at first glance but regardless of the definition adopted there is no doubt that the entrepreneur can benefit from improved resilience to develop skills for coping in the 'risky' environment with which they operate (Ayala & Manzano, 2014).

This study is concerned with the individual entrepreneur, rather than their enterprise. More specifically, it is concerned with mindfulness as a potential tool for enhancing personal development in the entrepreneur by way of improving resilience. In studying entrepreneurs generally, it is important to understand the environment they operate within, the nature of entrepreneurship and what it means to be an entrepreneur.

As is the case for entrepreneurs, enterprise and entrepreneurship are also terms that are often depicted and represented in a way that doesn't reflect their actual nature (Atherton, 2004). Depictions and representation influence and shape our views of the world, and these views are often subjective judgements, informed by shared values and beliefs (Williams, 2008). When considering what entrepreneurship and enterprise are and what it means to be an entrepreneur, Atherton (2004, p. 122) states,

“we are judgmental and have strong opinions and views that are both explicit and implicit”.

When the word ‘entrepreneur’ and ‘entrepreneurial’ are used to describe someone in business it is not unusual for images and perceptions perhaps associated with individuals (e.g. Mark Zuckerberg) or with certain behaviours (e.g. making money, taking risks, playing out with the rules) to be formed in people’s minds. A quick review of business articles, blogs, features and mainstream popular media on entrepreneurs clearly demonstrates that there contrasting representations about what is involved in being an entrepreneur. On one hand, there is the long standing belief that being an entrepreneur is a very risky business and that many of the people involved in starting their own business possess undesirable or unattractive attributes and behaviours void of moral conviction (Hobbs, 1998). On the other hand, it appears that recent changes in social values in the UK are beginning to view entrepreneurs as having an important economic role to play in society and are now viewed as valued professionals (Trapp, 2003).

This implied qualitative assessment by the observer about whether or not entrepreneurship is a good or a bad thing, may in part have been influenced by the widely held political view that entrepreneurs are important agents of change and renewal in the economy (BIS, n.d). Enterprise has been an important part of the vocabulary and knowledge base of economic and industrial policy in the UK since the 1980s with the emergence and formation of an enterprise culture. For all intents and purposes entrepreneurship has remained an important consideration for policy development and the promotion of an enterprise culture since the 1980s. As such there is a broad political consensus as to the importance of entrepreneurship and entrepreneurs to the economy and its development resulting in all political parties agreeing on the need to encourage business start-ups and reduced regulation and red tape (Atherton, 2004).

Another challenge with adopting a valued approach to looking at entrepreneurship is that it creates a tendency for us to look for a moral dimension or aspect to the entrepreneur (Atherton, 2004). However, Martin & Osberg (2007) make the point that the notion of entrepreneurs as being spurred on by money

and social entrepreneurs by altruism and that the difference can be ascribed to motivation is indeed misleading. The truth is:

that entrepreneurs are rarely motivated by the prospect of financial gain, because the odds of making lots of money are clearly stacked against them. Instead both the entrepreneur and the social entrepreneur are strongly motivated by the opportunity they identify, pursuing the vision relentlessly, and deriving considerable psychic reward from the process of realising their ideas” (Martin & Osberg, 2007, p. 34).

It is fair to say however that publicly held and shared perceptions and preconceptions of entrepreneurs and entrepreneurship can lead to stereotypes, caricatures and distortions that preclude or obstruct real insight into these phenomena. What this demonstrates is that there is a lack of detail and meaningful insight into entrepreneurs and their world and experience. This appears to be no different with reference to the political economy and rhetoric of entrepreneurship in the UK. There is a continuing and growing need to base policy on rigorous, grounded and insightful thinking and research that provides an effective representation of actual experience (Curran, 1999).

The ambiguity in the cultural representation of entrepreneurs may also explain why entrepreneurship has been defined in many different ways by observers and researchers. Some have suggested that entrepreneurship relates to the confluence of capability and experience, placing individuals in the ‘right place at the right time’ whether as a result of serendipity (Martello, 1994) or by spotting and seizing opportunities (e.g. Kirzner, 1973). Others have focused on the innate and acquired qualities of the individual entrepreneur, suggesting that his or her attitudes and behaviours are key (Alaya & Manzano, 2014). As this study is focused on the individual entrepreneur rather than the entrepreneurial process, the latter is the focus within this study.

Nevertheless, Aherton (2004) proposes that entrepreneurship is a broad label that includes the state of being an ‘entrepreneur’ and the behaviour of being ‘entrepreneurial’. Being an entrepreneur associates an individual, or individuals, with the creation, owner-management, development and renewal of a venture. The entrepreneur is responsible for decisions and commitments and will adopt a set of responsibilities, tasks, requirements and experiences that distinguishes

him or her from others in the organisation. Entrepreneurs will have responsibility as well as liability for the venture and its financial performance. They will have ultimate responsibility for the venture, be central to decision making and exposed personally and professionally to the results and outcomes from his or her actions.

Being entrepreneurial, on the other hand, is a behaviour that can be demonstrated and manifested regardless of the nature of involvement in an organisation (Atherton, 2004). As such, it encapsulates a set of personal predispositions and tendencies that can be seen in people regardless of where they work and can also be seen in all aspects of working and non-working life. Atherton (2004, p.125) defines it as “taking the initiative and responsibility to re-shape existing boundaries and norms and to create new boundaries and norms in order to manage and deal with conditions of ambiguity, complexity and uncertainty”. The distinction between ‘being an entrepreneur’ as a state of entrepreneurship and ‘being entrepreneurial’ as a behaviour indicates that both are different conditions and experiences and a view the author aligns with.

Although the author was interested in both the state of being an entrepreneur and the behaviours associated with being entrepreneurial, participants were only permitted to participate in the study if they met the requirements of being an entrepreneur. For the avoidance of doubt it wasn’t enough for the individual to be entrepreneurial but not an entrepreneur. The definition of the ‘entrepreneur’ adopted in the current study was derived from co-opting aspects of existing literature, which broadly categorises an entrepreneur as somebody who creates, owns and controls their own venture under particular conditions. Important here was the notion that entrepreneurs produce something new that would otherwise not be available or accessible. The notion of wealth via profit and cash was also considered. This is outlined in the methods chapter.

The definitions adopted in relation to the state of being an entrepreneur and the behaviours associated with being entrepreneurial indicate that they can emerge and exist in multiple organisational forms and across many dimensions of working and non-working life. Entrepreneurs can create new wealth in different forms and in different types of organisation, including private businesses, public, and quasi-public bodies, voluntary, charitable and non-governmental organisations.

Similarly, individuals can behave entrepreneurially in all aspects of working life and can extend these behaviours into a personal and non-work context. No single space and place, as such, is the preserve of entrepreneurship. Instead, entrepreneurship can permeate all aspects of society and the economy when the external environment is right and conditions conducive. The notion of enterprise therefore incorporates the environment and climate within which entrepreneurship occurs, and within which it is encouraged and nurtured or resisted or suppressed. The author is interested in enterprise only in the sense of the entrepreneur's individual effort in being an entrepreneur as opposed to the wider collective organisational view.

### **2.1.1 The resilient entrepreneur**

Resilience "an ability to go on with life, or to continue living a purposeful life, after hardship or adversity" (Tedeschi & Callhoun, 2004, p.4) has recently warranted its place in entrepreneurship research.

It is widely acknowledged, that entrepreneurs begin again after repeatedly and often tenaciously, after failed endeavours and/or operating ventures in adverse environments (Cope, 2011). Resilience is emerging as a critical phenomenon in the context of successful entrepreneurship (Hedner et al., 2011, Francis, 2014; Jozefak, 2011; Wee, 2008; Kuemmerle, 2002) and is more frequently being linked to desirable characteristics of both entrepreneurs and their ventures.

Understanding how and why some entrepreneurs succeed remains a major challenge for researchers in the field. Some scholars argue that the success of an entrepreneur is determined by an interaction of individual qualities. Qualities such as experience, education, psychological characteristics e.g. high need for achievement (McClelland, 1968; Stewart et al., 1998; Roper, 1998; Beugelsdijk & Noorderhaven, 2005), high internal locus of control (Ward, 1993; Gilad, 1982), high self-efficacy (Rauch & Frese, 2007; Bullough, Renko & Myatt, 2014) and the characteristics of the venture itself, including firm size, finances and growth rates (Ayala & Manzano, 2010) have all been cited as important characteristics. Others

study what contributes to an entrepreneur's achievement through cognitive and social behavioural lenses (Aldrich & Martinez, 2001).

Despite the lack of consensus on what makes an entrepreneur successful a critical line of enquiry may be to answer Venkataraman's (2000) question of why some entrepreneurs are more successful than others when confronted with hardship. Resilience is important to understand because it can potentially serve as a protective measure in the face of extreme stress, trauma and adversity (Green et al., 2014). It can also inform programs designed to prevent dysfunctional or maladaptive outcomes (Ballenger-Browning & Johnson, 2010). Being an entrepreneur is a journey often characterised by stress and adversity and in some instances trauma (Freeman, 2015). One with immense highs and lows, moments of intense adrenaline, exposure, disorientation and occasionally the sense that somehow, you've arrived back where you started. It includes moments of vulnerability, doubt, guilt, fear and anxiety, which tap into some of the core psychological challenges individuals all face (Burrowes, 2013). This is just part of the story; there is also vulnerability & risk (Hytti, 2005), passion (Murniek et al., 2016) and the possibility of failure (McGrath, 1999) to consider.

In addition to this context, increasingly entrepreneurs are required to find opportunities and operate in a global economy that is both highly competitive and rapidly changing, and in many ways, they are the ones changing the landscape (Bullough & Renko, 2013). Entrepreneurs, as such, produce something new, which would not otherwise be available or accessible. Whether this is a tangible product or service, or something less tangible, such as a process, method or strategy this creative process doesn't come without its challenges (Atherton, 2004). Despite this ambiguous environment, more than 50% of the fast-growing and largest companies of today were founded during economic adversity. It appears that launching a new company in a declining economy does not actually put companies at a disadvantage. The paradox being that at the height of the 2007 crisis there were more low overhead, low revenue start-up businesses launched than in previous years (Kauffman Foundation as cited in Bullough & Renko, 2013).

Understanding what drives entrepreneurial activity requires understanding how individuals personally construct perceived opportunities (Krueger, Reilly & Carsrud, 2000). Qualities such as the persistence and decision making of entrepreneurs despite adversity or an attractive alternative option (e.g. moving to another venture or giving up altogether) are now regularly researched (Holland & Shepherd, 2013) and point to the importance of resilience. With unforeseen situations becoming a larger part of everyday life given recent political and economic situations, uncertainty and dealing with the unexpected has become even more prevalent in the lives of entrepreneurs. It is hardly surprising that researchers are interested in the coping mechanisms this uncertainty invokes. Operating in such precarious and aggressive environments raises questions of how and why some entrepreneurs are much more capable than others of maintaining purpose and form in the face of drastic and sudden change and/or of bouncing back in a stronger position to tackle future challenges.

The ways in which entrepreneurs organise themselves for high performance in settings where potential for error and catastrophe is overwhelming, is a highly worthwhile area of study (Weick & Sutcliffe, 2007). Successful entrepreneurs share a singular demand: they have no choice but to function reliably. If reliability is compromised, harm to the business may ensue, and financial survival also compromised. Thus successful entrepreneurs establish their business goals and make timely decisions to achieve those goals in spite of their environments (Holland & Shepherd, 2011).

The information available to entrepreneurs is often ambiguous, incomplete or constantly changing. In these circumstances, entrepreneurs, who show a high degree of tolerance for ambivalence and who adapt quickly to change, may be better prepared to succeed and could be seen to be resilient (Ayala & Manzano, 2014). Unexpected events often audit our resilience, they affect how much we stretch without breaking and then how well we recover. Resilience can be thought of as a resource that individuals are able to mobilise in a time of stress (Hobfoll, 2002). When entrepreneurs are able to be resilient, they are better able to cope with the precarious environment around them, they are able to take action in the face of adversity, rather than recoil in fear (Folkman & Moskowitz, 2000; Tedeschi & Calhoun, 2004). Resilience makes these positive outcomes during

adversity possible (Westphal & Bonanno, 2007). Potential entrepreneurs who have this ability to grow and learn from misfortune would therefore be better positioned to partake in the actions needed to start and grow a business (Kruerger et al., 2000). While resilience, in general, is key to understanding coping in and after crises (Folkman & Moskowitz, 2000), it has yet been underexplored in terms of how it contributes to entrepreneurial initiatives in adverse conditions (Bullough et al., 2014).

Albeit important for the success of their enterprise, the goal for entrepreneurs should not simply be to produce high levels of productivity and high performance at the expense of their psychological wellbeing. As resilience is thought to play an important role in mindfulness exerting its beneficial effects in terms of psychological wellbeing (Bajaj & Pande, 2016) then the development of resilience by way of mindfulness training may have great value.

As the literature suggests a three-way relationship between mindfulness, resilience and psychological wellbeing (Pidgeon, & Keye, 2014), the author has included psychological wellbeing as a secondary outcome measure within the study. In line with Ryff's (1989) view that social, psychological, and physical factors all contribute to an individual's psychological wellbeing (Seifert, 2005) stress (Gelles, 2015), affect to include both positive and negative emotion (Fredrickson & Losada, 2005) and life satisfaction were all investigated (Jankowski, 2012). Their inclusion is discussed in the methodology chapter.

### **2.1.2 The construct of resilience**

The development of resilience, through the development of proactive behaviours in individuals is viewed by many as a potential solution to the stress associated with present day lifestyles and workplaces (Grafton, Gillespie & Henderson, 2010; Neenan, 2009) through the development of protective behaviours.

Although often defined in line with Tedeshi and Calhoun's 2004 definition as "an ability to go on with life, or to continue living a purposeful life, after hardship or adversity" (p.4); the complexities of defining resilience are widely recognized (Windle, 2011). The sub-constructs that make up the definition of resilience remain somewhat inconsistent; with resilience viewed as "innate or developmental; process or outcome; focusing on deficit or wellbeing; and emphasising benefits for individuals and workplaces" (Foureur et al., 2013, p.114). These general definitions of resilience can be categorised into two broad clusters (Shaikh & Kauppi, 2010). The first cluster contains definitions derived primarily from the discipline of psychology and influenced by a positivistic research orientation covering six key themes (see **Figure 1** on page 26). In this cluster, the evolution of enquiry into resilience has been organised into three waves (Grafton et al., 2010) or paradigms. The second cluster (see **Figure 1**) with origins in the disciplines of social work and sociology heavily emphasises assumptions linked to constructionist and interpretive worldviews. This conceptualises resilience into 2 themes including human agency and resistance and survival.

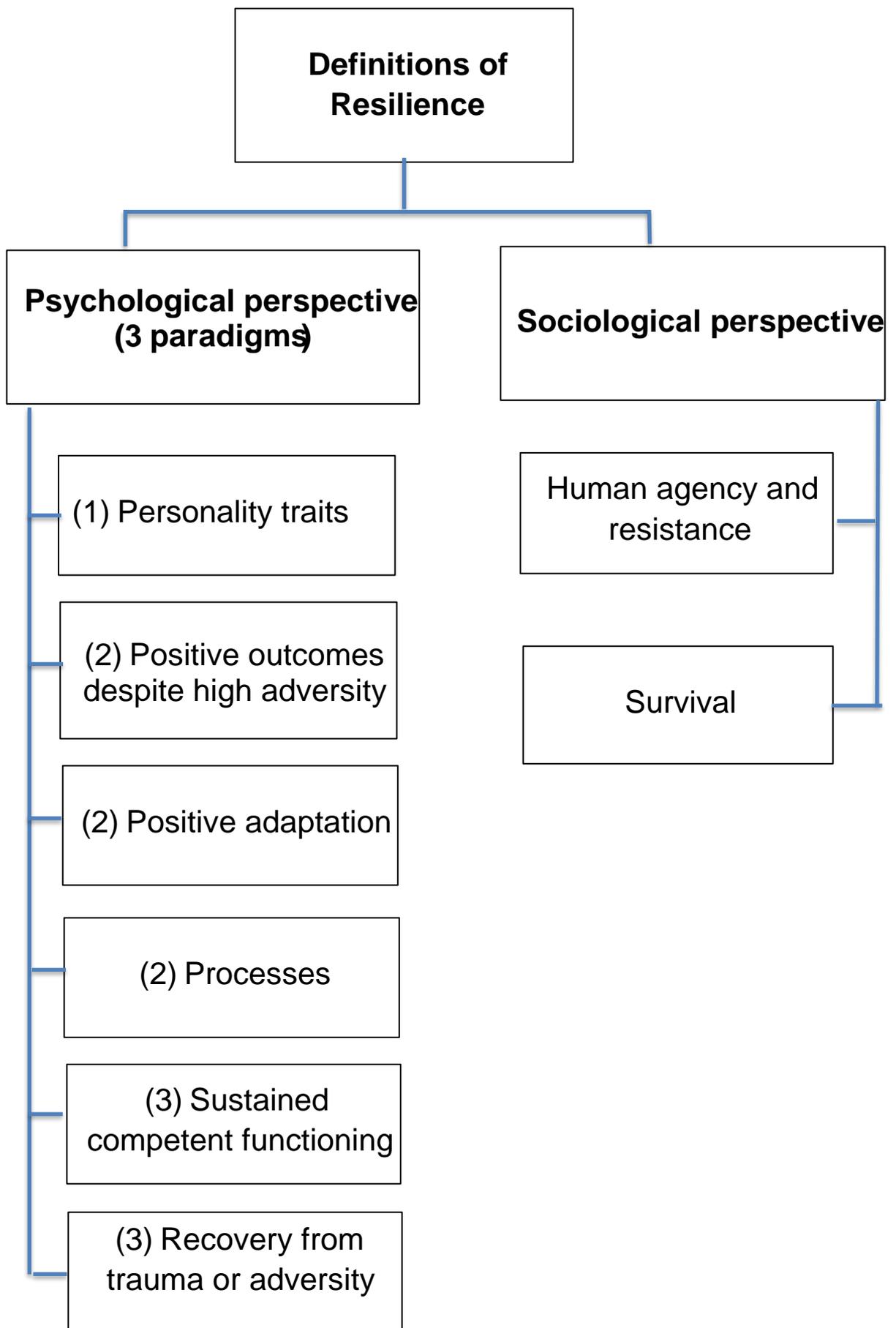


Figure 1: Definitions of Resilience: Extracted and adapted from Shaikh & Kauppi (2010)

### *Psychological perspective on resilience*

The first paradigm focused on resilience as a set of personality characteristics such as hardiness (Kobasa, 1979), coping (Richardson et al., 1990), self-efficacy (Bandura, 1997), optimism (Fredrickson, 2009) and adaptability (Cannon & Edmondson, 2005). Connor and Davidson (2003) in their study of entrepreneurs conceived resilience as a multi-dimensional personal characteristic that would enable an individual to thrive in the face of adversity. They identified hardiness, clarity of goal/aim, action orientation, strong self-esteem, adaptability, social problem solving skills, humour in the face of stress, patience and tolerance as salient features of resilience. The major limitations of this conceptualisation are that resilience is construed as a static individual trait; implying that some people are born with resilience, while others are not (Luthar et al., 2000); thus opening up the nature/nurture debate (Galton, 2013). The implication is that such perspectives do search for processes underlying resilience or further develop the design of appropriate mindfulness based interventions (Luthar et al., 2000). Although trait models can enhance our theoretical understanding of resilience, one would argue that state-like models could provide practical suggestions for enhancing resilience by focusing on the resources that can be developed.

The second paradigm involves a shift in focus to viewing resilience as a dynamic process where adversity is met with adaptation derived from learning gained from experience (Fouereur et al., 2013). According to this conceptualisation, an individual may be considered resilient based on two major types of judgment (Masten, 2001). Firstly, the individual faces significant adversity or risk and secondly, the quality of adaptation is acceptable. Importantly, “positive adaptation in the absence of risk/adversity is not considered a manifestation of resilience” (Shaikh & Kauppi, 2010, p.158). This approach has received widespread criticism, as there is no consensus as to what constitutes high risk or adversity (Kaplan, 1999). Some scholars argue that individuals who are viewed to be at high risk yet resilient may not be at actual risk due to other factors e.g. assets or protective factors. Another key concern when evaluating risk is in relation to the multiplicity of associated meanings. According to some researchers “the identification of risk, adaptation, and resilience is relative, situational and attributional (Schoon, 2006 as cited in Shaikh & Kauppi, 2010,

p.159) thus making comparisons i.e. that one person is more resilient than another difficult to measure due to the element of subjectivity.

The most recent (third paradigm) views resilience in terms of innate energy of motivating life force within an individual that enables them to cope with adversity, learn from experience and engage in cognitive transformation (Grafton et al., 2010). Central to this research area is the relationship between resilience, stress and positive emotion. Rather than viewing psychological resilience as a relatively stable personality trait, new research suggests that positive emotions are critical to state resilience (Hayward et al., 2010). This is not to say that positive emotions are merely a by-product of resilience, but rather that feeling positive emotions during stressful experiences may have adaptive benefits in the coping process of the individual (Tugade & Fredrickson, 2004). Importantly this wave of inquiry points to the development of resilience through holistic self-care practices such as mindfulness-based cognitive therapy approaches (Siegel, 2007). Crises can have positive and negative consequences however positive emotions protect resilient people from negative reactions so they can flourish instead of falter (Fredrickson et al., 2003). Fredrickson's Broaden-and-Build Theory of Positive Emotions (2009) highlights the importance of the balance between both positive and negative to include intellectual, physical, social and psychological resources (Darwin, 2014).

Fredrickson (2009) argues that while negative emotions restrict people's thoughts about possible actions, positive emotions do the exact opposite. First, they broaden ideas, bringing a more open awareness of thoughts and actions, allowing us to be more flexible and inventive. Second, this expansive awareness allows us to build and discover new skills, new knowledge, and new ways of existing. The importance of positive emotions to the development of resilience is also on the premise that to be resilient we must adequately deal with negativity bias e.g. "I failed before so I will fail again" (Baumeister et al., 2001; p.355); adopt the 40% solution i.e. the idea that 40% of our happiness is as a result of our constructive, creative, intentional activity (Lyubomirsky; 2007) and avoid cognition distortions (Beck, 1976; Burns, 1980). Cognitive distortions are inaccurate thoughts, which reinforce negative thinking, or emotions - telling ourselves things that sound rational but in reality, are often irrational to the

outsider. If we become more mindful of these, we can gradually learn to recognise their arising, and weaken their impact and their ability to make us feel bad about ourselves. “The ability to respond to the on-going demands of experience with the range of emotions in a manner that is socially tolerable and sufficiently flexible to permit spontaneous reactions as well as the ability to delay spontaneous reactions as needed” (Cole et al., 1994, p.78); otherwise known as self-regulation has been shown to aid the entrepreneur in goal setting (Locke, 1990), decision making (Higgins, 2002) and motivation to lead (Kark & Van Dijk, 2007). Holland (2006) and others (Hayward et al., 2010; Bryant, 2014) have cited self-regulation as being instrumental in responding to adversity, developing both emotional and cognitive resilience and ambidexterity respectively. This conceptualisation of resilience has been criticised based on the shortcomings that it is based on a construct of stress which: 1) has multiple subjective meanings 2) can work as a trigger or a response in triggering adaptive coping behaviour thus can be either positive or negative 3) experience of one trigger may have an effect on another stressor (Kaplan, 1999).

### *Sociological perspective on resilience*

The second cluster (see **Figure 1** on page 26) with origins in the disciplines of social work and sociology heavily emphasises assumptions linked to constructionist and interpretive worldviews. This conceptualises resilience in 2 themes including human agency and resistance and survival. The concept of human agency is that human beings are not passive recipients of their environmental stimuli (Tarter & Vanyukov, 1999). Instead, individuals are autonomous, purposive and creative actors and active recipients of their environmental stimuli (Lister, 2003). Factors such as social support and family cohesion are considered to contribute towards positive adaptation; however, it is plausible that individual's contribution to these factors may confer upon them the status of resilience. For instance, a resilient entrepreneur may have an ability to seek and extract support from others as well as enhance his/her social support. Similarly, an entrepreneur may contribute to the cohesion of his/her employees (Scheer, 2009). Hence, it is not merely availability of support, but it is the active engagement of a person with the relationships, which may be the protective effects of resilience. This is where the concept of human agency arises in relation to the

construct of resilience in entrepreneurs (Bruederl et al., 1992). Central to this theory is that the individual intentionally makes choices and takes appropriate action. The key question one would pose here is whether or not the individual possesses the individual characteristics, psychological capital and coping mechanisms to take resilient action through positive adaptation. Unlike human agency, which may lead to normative outcomes or positive adaptation, survival on the other hand may lead to negative outcomes. Resilience may be seen as an adaptable, flexible and competent process. However, it may also be characterised by a process of defensive tactics such as insulation, isolation, disconnection responses required to survive the adversities (Hunter & Chandler, 1999). In entrepreneur's we see this often with behaviours such as failure to conserve resources and over investing when the business is beyond salvageable (Staw & Ross, 1989).

In considering both perspectives (i.e. psychological and sociological) the author will adopt a psychological perspective of the construct of resilience as it is felt that this is more suitable to the psychological intervention, which will be adopted within the study i.e. the MBSR/MBCT approach to the intervention is psychological by design.

The author however does not align with the view that resilience is the result of an isolated event and that it is a fixed trait. Rather the author sees resilience as a dynamic interaction of personality characteristics, patterns of coping responses and a process of cognitive transformation. The unification of the 3 waves of psychological research is proposed as a way of developing a working definition as the author believes that all waves of the research on resilience have value and that a holistic multi-dimensional construct of resilience is most appropriate. The notion of human agency and survival will not be discounted but instead focusing on them from a psychological and human capital perspective i.e. the individual as opposed to focusing on a social capital perspective i.e. the collective.

In synthesising the available literature, the author concludes that entrepreneurship resilience means 1) the ability to cope well with high levels of on-going disruptive change of the surroundings towards the business (Bonanno, 2004); 2) the ability to bounce back the business with acceptable means from

setbacks (Hayward et al., 2010; Sutcliff & Vogus, 2003); 3) overcoming business adversities (Windle et al., 2011; Conor & Davidson, 2003; Newman, 2005) and 4) altering the status quo and forging new paths when the other way is no longer possible (Bullough & Renko, 2013). The definition, which appears to encapsulate the union above, is that offered by Ayala and Manzano (2014, p. 127) who state “resilience is the result of an interaction between entrepreneurs and their environment. It is a dynamic and evolving process through which entrepreneurs acquire the knowledge, abilities and skills to help them face the uncertain future with a positive attitude, with creativity and optimism, and by relying on their own resources”.

The author will adopt this definition proposed by Ayala and Manzano (2014) who also see entrepreneurship resilience as a multi-dimensional construct that comprises of a network of favourable attitudes and behaviours rather than a specific stable characteristic. The word “favourable” is important here as many traditional definitions of resilience focus on protective factors or the absence of specific negative outcomes, such as those that emphasise the prevention of mental disorders (Richardson, 2002). Although the prevention of mental disorders (e.g. depression) is clearly an important goal of many resilience programs, building the capacity to be resilient with an emphasis on growth and happiness has continued to emerge with a different perspective on resilience (Lyubomirsky & Della Porta, 2010).

### **2.1.3 Developing psychological fitness and resilience**

In accepting the definition of resilience offered by Ayala & Manzano (2014; p.127) which stresses the importance of entrepreneurs “.... acquiring the knowledge, abilities and skills to help them face the uncertain future with a positive attitude, with creativity and optimism, and by relying on their own resources” it is important to further investigate which resources enable us to develop them by way of any form of psychological intervention. These resources develop psychological fitness that, if available and used, can increase an individual’s ability to respond appropriately to stressful events (i.e. to be resilient).

That is, psychological fitness is the integration and optimization of cognitive processes and abilities, behaviours and emotions to positively impact performance, wellbeing and response to stress. Recognising the need for entrepreneurs to enhance their action repertoire by building resources and the skills to use those resources through the development of both internal and external resources to facilitate resilience is important. Maximising these resources facilitates resilience, which develops one’s ability to withstand, recover from, and/or grow in the face of stressors and changing demands.

The review of the literature has identified several psychological resources, which help the individual develop their psychological fitness and ultimately their resilience. These resources generally fall into three broad domains: (1) affective (2) cognitive and (3) self-regulatory and can be thought of as antecedents of a complex process whereby individuals deal with events as they unfold (Luthar, 2000). The affective domain refers to the experience of positive and negative emotions (e.g. positive and negative affect). The cognitive domain includes constructs that reflect individual’s thoughts, beliefs and evaluations of themselves (i.e. self-efficacy and self-esteem) and their interpretation of the situation (i.e. perceived control). The self-regulatory domain refers to the process of self-regulation and strategies for coping with stress.

Robson (1993) argues that all 3 domains need to be nurtured, developed and learned as they provide the resources, which build on basic foundations, which

in turn develops the psychological fitness needed to enable the entrepreneur to respond to stressful events with resilience. Robson (1993) further postulates that the person when more in control over their emotions (affective domain) subsequently encourages improves their judgement and reasoning (cognitive domain). This ultimately improves their ability to regulate behaviour (self-regulatory) domain. The author further proposes that this multi-dimensional view of resilience is cyclical in nature, in that recurring episodes of resilient action continue to develop the basic and proximal foundations, which improve psychological fitness, and ultimately make someone more resilient. This articulation of resilience is depicted in **Figure 2** on page 34 and is built on the premise that resilience can be learned (Davda, 2015; Coutu, 2002) as put forward earlier.

#### *Affective domain*

The affective domain (Kratwohl, Bloom, Masia, 1973) includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations and attitudes. As discussed earlier the author believes that for the entrepreneur to become more resilient there is the need to develop one's emotional intelligence through the promotion of positive emotions and a reduction in negativity bias. In contextualising Fredrickson's (1998) broaden and build theory of positive emotions, to the entrepreneur it posits that recurrent experiences of positive emotions allow individuals to build a range of consequential personal resources. Consequently, with this broadened and more positive outlook there is a reframing of observations so that they are clearer and less biased (e.g. Brown et al., 2007; Shapiro, Carlson, Astin & Freedman, 2006) thus reducing negativity bias.

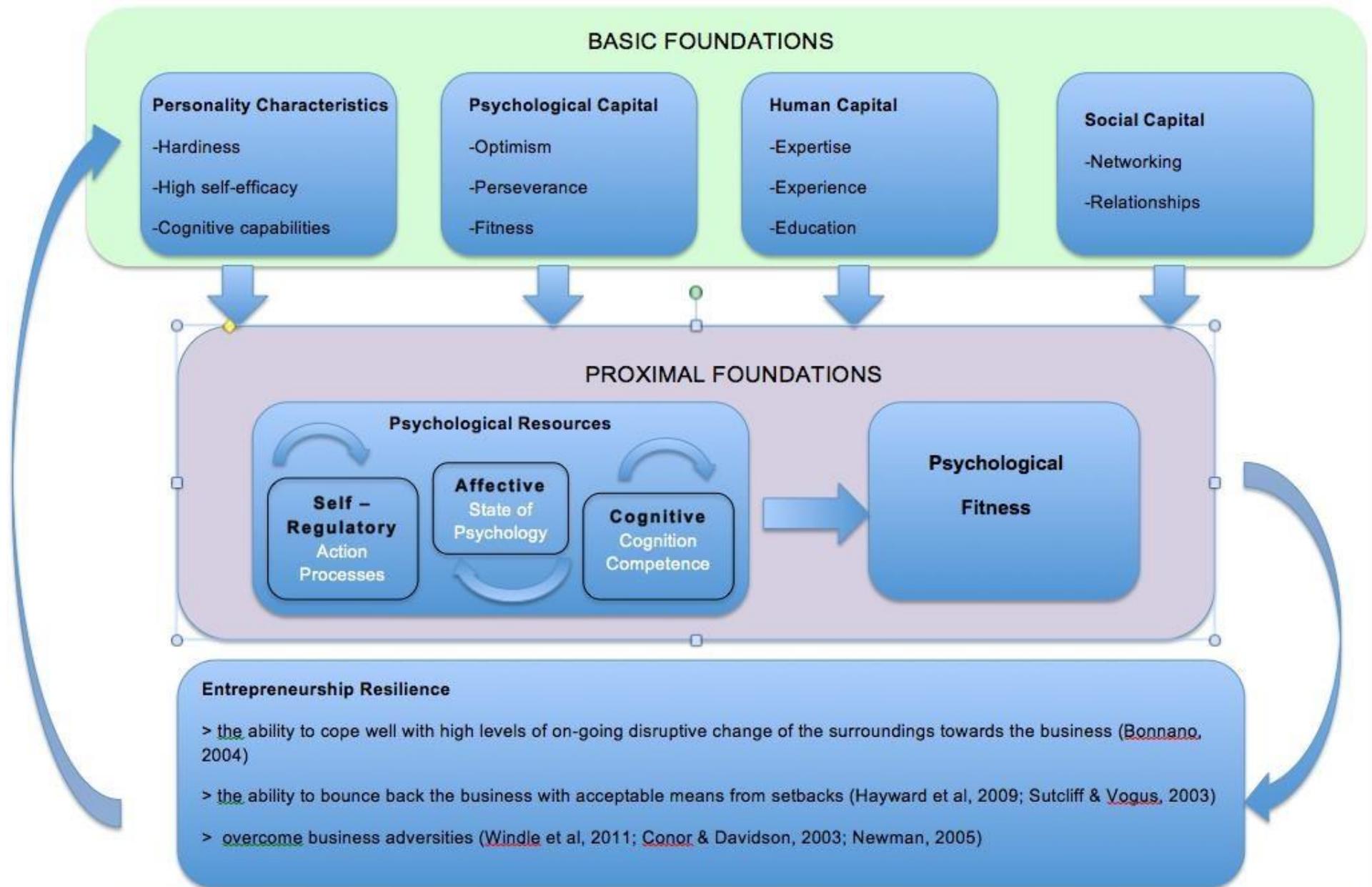


Figure 2: Construct of Entrepreneurship Resilience (Adapted from Baum, Frees and Baron, 2007 and Research synthesis)

However, there has to be a balance between the framing of both positive and negative emotions and a need for both self-awareness and self-knowledge to appraise their use. For example, too much optimism and the entrepreneur can escalate their commitment to a failing course of action persisting with the same strategies with an increase in invested resources and end up throwing good money after bad (DeTienne et al., 2008; Garland, 1990; Staw, 1981). The ability of the entrepreneur to become an objective evaluator of oneself (self-aware) is crucial to the management of one's emotions.

Entrepreneurs are often in a state of mental or emotional strain or tension resulting from adverse or very demanding circumstances. The ability to choose one thought over another and remain positive is potentially the greatest weapon against stress that entrepreneur's regularly experience. The development of positive emotions helps us react in a certain way, it can help us to avoid worrying, ruminating on what has just occurred, and helps us control our thoughts and focus on the present. Often referred to as emotional intelligence (EI), Salovey and Mayer (1990, p .185) describes this non-cognitive ability as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action"

The central tenets of EI make it clear that people are a complex combination of emotion and reason. Salovey et al. (1999) found that individuals who scored higher in the ability to perceive accurately, understand and appraise others' emotions were better able to respond flexibly to changes in their social environments and build supportive social networks. It may appear obvious that emotional intelligence is of primary importance for success in work and life. However, this would be too simplistic a conclusion and also somewhat misleading. By itself, emotional intelligence is not a strong predictor of job performance, but it provides the foundation for the social competencies that are the key to success.

A considerable body of research now suggests that the key to success lies in a person's ability to perceive, identify, and manage emotion. The ability to

intelligently utilise emotional information, may temper their impact on mental health (Ciarrochi, Forgas, & Mayer, 2001) and buffer the effect of aversive events (Armstrong, 2011). Emotional intelligence has also been shown to have a direct correlation to resilience, such that emotionally intelligent behaviour in stressful circumstances is adaptive. Salovey, Bedell, Detweiler, and Mayer (1999) theorize that persons with higher EI cope better with the emotional demands of stressful encounters because they are able to “accurately perceive and appraise their emotions, know how and when to express their feelings, and can effectively regulate their mood states” (p. 161).

Persons able to self-induce positive moods are happier in both positive and negative circumstances (Ciarrochi, Chan, & Caputi, 2000), and tend to be more physically and mentally healthy (Extremera & Fernandez-Berrocal, 2002). They engage more frequently in active coping behaviours such as problem-solving, self-pep talks and physical exercise (Salovey, Stroud, Woolery & Epel, 2002).

Armstrong et al. (2011) investigated the importance of 6 Emotional Self dimensions in the prediction of psychological resilience to multiple negative life events and found that awareness; emotional expression, emotional self-control and particularly emotional self-management appeared central to psychological resilience in the aftermath of multiple negative life events.

A person with high emotional intelligence can build up self-efficacy with calculated risk to create new business opportunities for running a self-owned enterprise. He or she can manage diversity, make independent decision and mobilize human resources for its optimum utilization (Goleman, 1998; Pradhan, 2003). Bar-On (1997) mentioned that people with high emotional intelligence can manage stress, survive uncertainty and can restore health and wellbeing all of which are important to developing one’s resilience. These are also the abilities required for a person to become a successful entrepreneur. (Pradhan & Nath, 2012).

Baron et al. (2012, p. 310) also showed that dispositional positive affect (DPA), “the stable tendency to experience positive moods and emotions across many

situations and over time” has been found, in a large body of research in several different fields, to be associated with beneficial outcomes (e.g., enhanced career success, development of high quality social relationships, superior personal health). Evidence on this issue is not entirely consistent, however, and high levels of DPA have sometimes been found to be associated with detrimental outcomes. (e.g. reduced task performance, biased recall of information, increased impulsivity). The overall result is a curvilinear relationship between entrepreneurs' level of DPA and their performance of tasks closely related to new venture development and growth (e.g. opportunity recognition and evaluation, effective decision making). Goleman perceives that these competencies are learned, whereas Mayer and Salovey perceive emotional intelligence as representing a person's potential for mastering specific skills.

### *Cognitive domain*

For entrepreneurs to acquire knowledge and cope with adversity requires one's self to engage in mental processes concerned with the act of thought, experience and the senses. One's cognition of personal experience of reality depends largely on their present state of consciousness, or as it was put by Anais Nin (1969, p.124) “we don't see things as they are, we see things as we are”. Our perceptions and states are two essential cornerstones in the foundation upon which we build our world, including all our successes and failures. Albert Einstein recognised that in order to solve the problems that we experience on one level, we require expanded levels of perception. People who feel stuck in stressful situations are often unable to find a satisfying solution until they employ a means of shifting their mode of perception of the nature of internal experiences, otherwise known as decentering (Fresco et al., 2007; Shapiro et al., 2006), and a reduction in self-focused attention (Leary, Adams & Tate, 2006). When entrepreneurs suffer setbacks, it can be an extremely stressful environment, and when stress accumulates entrepreneurs can be susceptible to inaccurate thoughts otherwise known as cognitive distortion (Beck, 1972) and a narrowing of attention or meta-awareness (Baer et al., 2006).

In the absence of meta-awareness (attention to being aware of your own awareness) there is a limited perception of oneself in relation to one's surroundings and this is a contributory cause of why we experience ourselves as separate from everyone and everything else in life, which in turn can lead us to behave destructively towards ourselves, others and our environment. Tunnel awareness can be understood as a lack of meta-awareness, a narrowed focus of attention that deletes everything in the periphery of one's field of awareness from one's personal consciousness (Jha et al., 2007; Cahn & Polich, 2006). The common fight or flight response that entrepreneurs often experience in times of immense challenge or stress is associated with being in tunnel awareness, as in this state one usually identifies only the perceived danger while deleting whatever else is not necessary in our field of awareness and this leads to an unwanted increase in self-focused attention.

In situations that are not threatening to one's life, but considered by the individual to be stressful, one remains fixated on the object of negative reference while all other points of reference, including the quality of one's own thoughts and feelings are negated (Drummond, 2013). Entrepreneurs who experience overwhelming stress for a sustained period of time or burnout syndrome are usually stuck in a form of tunnel awareness, whereby that which perpetuates the problem is what one's attention remains focused on, thus the problem remains a problem. The ensuing resistance and narrowing of perspective to tackling the problem often results in us seeing a very limited view of the world. When we have only one worldview, this becomes rigid, entrenched and immovable. Inevitably, this leads to a heavy focus on thinking as opposed to direct experience; analysis of the past and future projections to make sure that the imagined self is protected. It is this habitual over thinking and analysis of pre-prepared old thoughts and distorted, closed and negative ways of thinking (schemas) that are unhelpful in times when what you actually need is to stay curious, open and interested.

Linked to the notion of negativity bias is the idea already discussed of the need for entrepreneurs to avoid cognitive distortions as outlined by Beck (1976). The entrepreneurs' thoughts, beliefs and evaluations of themselves and their interpretations of their situation are particularly relevant for entrepreneurs who

have previously had a failed attempt at venture start up. The cognitive domain involves knowledge and the development of intellectual skills (Bloom, 1956). This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. The challenge here can be in letting go of the past and the patterns of thinking associated to that experience e.g. “I have failed before so I will fail again” (Baumeister et al., 2001; p.355); and be open to new ways of thinking. This does demand a level of self-awareness and knowledge in terms of developing unhelpful thoughts and feelings about the self. The promotion of cognitive development, positive schemata’s (knowledge structures) and an awareness of the self, need to be trained for a resilience intervention to be successful (Mowbray, 2011). The promising news for any form of psychological intervention is that according to Piaget (1970) the schema is not a static trait. As experiences occur, new information is used to modify, add to, or change previously existing schemata. Schemata are always organised meaningfully, can be added to, and as an individual gains experience can be developed to include more variables and more specificity (Anderson, 1977). Additionally, cognitive processes that underpin any schema that become automatised can be brought back under cognitive control and previously automatised responses can be interrupted and/or inhibited. The development of the cognitive domain gives the entrepreneur an improved cognitive flexibility in dealing with challenging circumstances (Holas & Jankowski, 2013).

A satisfying solution to a problem might only be discovered when the individual succeeds in shifting their state of consciousness in a way that enables them to dis-identify from their limited self-concept and protected self. This can be facilitated through expanding one’s sense of self and establishing a broader perspective, which in turn increases ones awareness of choices beyond those that are determined through identification with the limited self-concept. The process ends by embodying the expanded state (feeling it in the physical form) and then choosing how to approach challenging situations from the point of view of the self. This technique brings about an awareness of the subtler realms of consciousness, where the boundaries between subject and object seem to

dissolve and where a sense of unity and interconnectedness arises (Hanson, 2011; Overdurf, 2013).

### *Self-regulatory domain*

Bonanno's (2004) research suggests that all human beings with unhampered mental health have an innate capacity for resilience and wellbeing even while facing adversity (cited in Kelley, 2005, p.265). According to Ciarrochi et al. (2001), difficulties in identifying feelings are likely to predispose an individual to poorer mental health. Various studies support the idea that an individual with a greater ability to identify their emotions will be able to regulate those emotions better (cited in Barrett et al., 2001, p.721). Inherent in mindfulness approaches is the ability to adapt and regulate one's thoughts, feelings and actions according to the situation (Baliki, Ceha, Apkarian & Chialvo, 2008; cited in Niemiec, Rashid, Spinella, 2012). Rather than perceiving mental and emotional states as fixed, the mindful approach identifies their impermanent nature and treats them as transitory phenomena (Kabat-Zinn, 19990; Segal, Williams & Teasdale, 2002). The mindful disposition does nonetheless require an on-going initiative for which regular self-regulation practice in the form of meditation is recommended (Kabat Zinn, 1990).

Self-regulation is an important building block for the development of psychological resources and ultimately resilience (Hayward et al., 2010; Bryant, 2014). Self-regulation refers to "those processes internal and/or transactional that enable an individual to guide his or her goal-directed activities over time and across circumstances" (Karoly, 1993, p.25). This ability affects the regulation of emotions, thought-processes, behaviours and performance (Baumeister, Heatherton & Tice, 1994). Self-regulation theory (SRT) is a conscious personal management system that involves the process of guiding one's own thoughts, behaviours, and feelings to reach goals. Self-regulation consists of several stages, and individuals must function as contributors to their own motivation, behaviour, and development within a network of reciprocally interacting influences (Baumeister, 2000).

As self-regulation is the ability to control aspects of the self, without this ability we would have great difficulty accomplishing anything, regardless of how good we might feel about ourselves. The ability to monitor and control our own behaviour, emotions, or thoughts, altering them in accordance with the demands of the situation is an important skill that the entrepreneur requires. It includes the abilities to inhibit first responses, to resist interference from irrelevant stimulation, and to persist on relevant tasks even when we don't enjoy them or when initially we aren't competent at them. Roy Baumeister, one of the leading social psychologists who have studied self-regulation, claims it has four components: standards of desirable behaviour, motivation to meet standards, monitoring of situations and thoughts that precede breaking said standards, and lastly, willpower (Baumeister et al., 2007). Baumeister along with other colleagues developed three models of self-regulation designed to explain its cognitive accessibility: self-regulation as a knowledge structure, strength, or skill (Baumeister et al., 2000). Self-regulatory behaviour gives the entrepreneur the tool kit and the ability to choose how we think (cognitive), how we feel (affective) and how we act (self-regulation) which utilises all 3 of the psychological fitness resources outlined and this gives a greater potential for subsequent behaviour and action. The author believes that this is a repeated ongoing process which is cyclic in nature in that the development of self-awareness and self-knowledge aids the individual to regulate their behaviour and consequently improved self-regulatory behaviour improves self-awareness and self-knowledge.

In a study by Trevelyan (2011) regulatory focus was cited as a key individual difference which determines an entrepreneur's effort on different tasks. If self-regulatory processes can inhibit preference over effective effort this may avoid unnecessary actions like continually putting money into a failing course of action; a common mistake by entrepreneur's when persistence, perseverance and optimism clouds one's judgement. The power to change the behavioural patterns that might seem deeply ingrained has the ability to make us more resilient along the way. This however is not possible without a developed self-awareness, self-knowledge and the building of a set of skills.

The author will move on to make the case for how mindfulness can improve all 3 psychological resources (affective, cognitive and self-regulation), which ultimately improves resilience. The author will argue that improvements in the self (self-awareness and self-knowledge) are the underexplored linkages between resilience and mindfulness and that a mindfulness intervention is the mechanism by which to build such skills.

## 2.2 The concept of mindfulness

Despite advances in knowledge with regard to the efficacy of mindfulness orientated interventions (Grossman et al.; 2004; Hoffman et al., 2010) such as MBSR (Kabat-Zinn, 1990) and MBCT (Segal et al., 2002; Teesdale et al., 1995) there is no general agreement on the conceptualisation and operationalization of mindfulness (Holas & Jankowski, 2013). Conceptual models of mindfulness include some very precise definitions but limited to a very narrow aspect of mindfulness (e.g. “decentring” in Teasdale’s model of metacognitive insight; Teasdale, 1999), while others seem too general (e.g. Bishop et al., 2004; Shapiro et al., 2006). One of the most cited definitions of mindfulness is an “awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003; p.145). Kabat-Zinn’s (1990) well-known characterization comprises seven aspects (see **Table 1** on page 44), which the author believes has the potential to improve all 3 domains of resilience will be considered later in the chapter.

Such a concept of mindfulness includes a number of important elements: 1) mindfulness is linked with intentional processes 2) in a state of mindfulness, the object of attention, whatever it is, occurs in the consciousness in the present moment and 3) mindfulness is an attitude of acceptance toward what is currently being experienced (Shapiro et al., 2006 as cited in Holas & Jankowski, 2013). Most researchers explicitly or implicitly agree that mindfulness is fundamentally a quality of awareness, they do however differ in the way they frame it, for example as a meta-cognitive skill (Bishop et al., 2004), as a self-regulatory

capacity (Brown & Ryan, 2003) or as an acceptance skill (Linehan, 1993). While mindfulness has been simultaneously conceptualized as a state, disposition, practice and intervention (Vago & Silbersweig, 2012), dispositional mindfulness will be the focus of this study. That is **awareness** and **attention** to what one is thinking and feeling in the moment (Louck's, 2014).

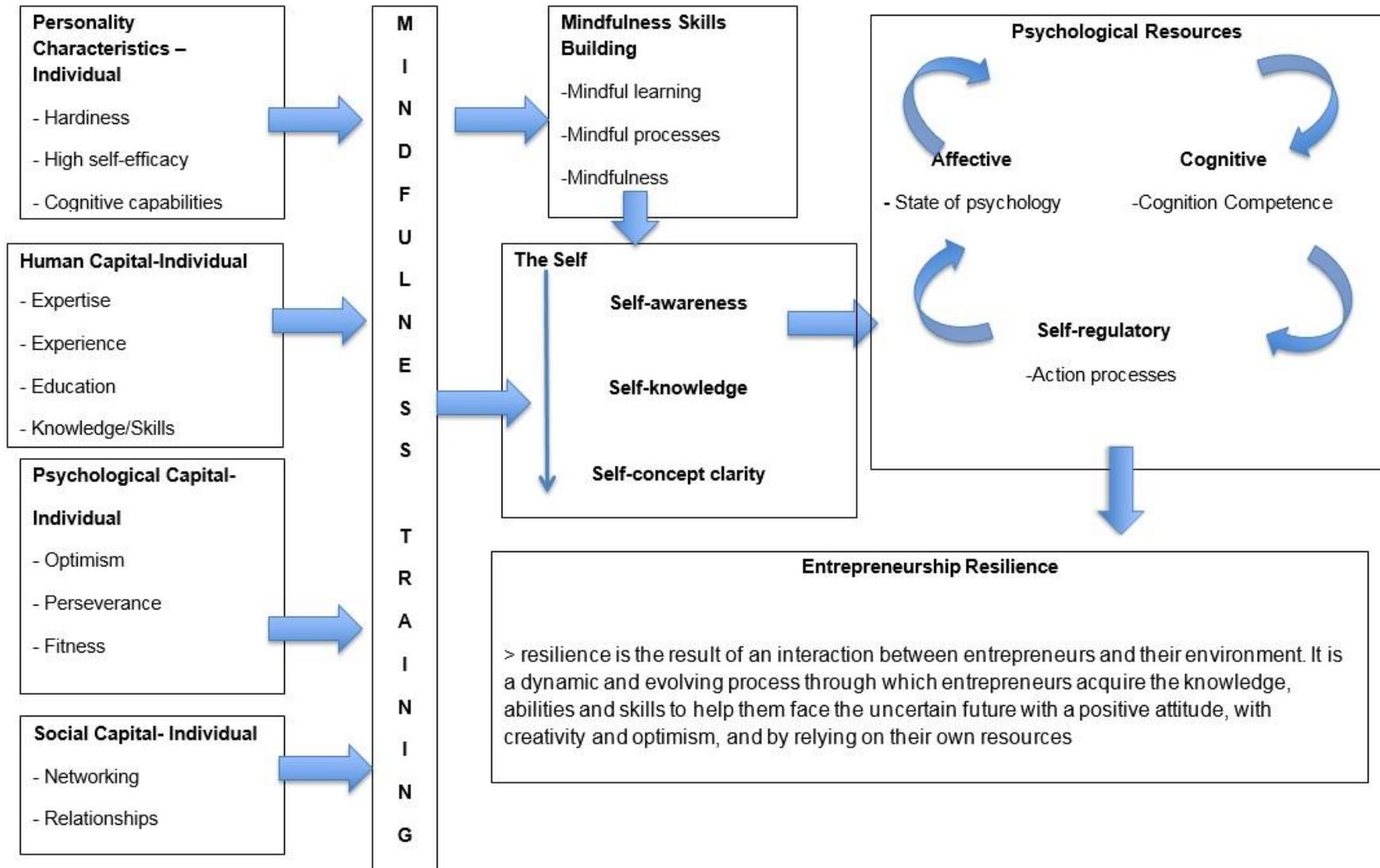
<b>Table 1: Seven Characteristics of Mindfulness</b> Kabat-Zinn (1990)
Non-judging: Impartial witnessing, observing the present, moment by moment without evaluation and categorization
Non-striving: Non-goal-oriented, remaining unattached to outcome or achievement, not forcing things
Acceptance: Open to seeing and acknowledging things as they are in the present moment, acceptance does not mean passivity or resignation, rather a clearer understanding of the present so one can more effectively respond
Patience: Allowing things to unfold in their time, bringing patience to ourselves, to others, and to the present moment
Trust: Trusting oneself, one's body, intuition, emotions as well as trusting that life is unfolding as it is supposed to.
Openness (Beginner's Mind): Seeing things as if for the first time, creating possibility by paying attention to all feedback in the present moment.

The author will adopt the definition as proposed by Kabat-Zinn (2003) but believes that understanding of each aspect is enriched by adding to Kabat-Zinn's characterization of mindfulness two further contributions in a more holistic definition of the term "mindfulness" which includes both state and trait elements.

First there are Langer's (1997) three characteristics of mindful learning which views mindfulness in its non-Buddhist and non-meditative sense. The author supports the approach of Boyatzis and McKee (2005) and further advocated by Darwin (2014, p.22) who also bring together the approaches of Langer and Kabat-Zinn, "seeing the cognitive openness advocated by the former, and the moment-to-moment awareness of the latter", as both helping to relate mindfulness to entrepreneurship. A parallel can be drawn between the potential integration of Mindful Learning into Mindfulness Based Interventions and the integration of CBT into MBCT.

Second, the notion that mindfulness has benefits in developing dynamic capabilities and organisation's resilience through not only individual cognition and action but also by organisational structures, processes and practices (Sutcliffe & Weick, 2007; Rerup, 2005) is worthy of further scrutiny in terms of its potential application to the individual. If one accepts that resilience of the entrepreneur changes as a result of their business activities requiring them to adjust their strategies and develop skills for coping then there is the opportunity to explore issues related to mindfulness processes and resilience in the context of entrepreneurship. The author will adopt a model of mindfulness, which incorporates moment-to-moment awareness (Kabat-Zinn, 2003), cognition (Langer, 1997) and mindful practices (Sutcliffe & Weick, 2007). The author will now aim to build an argument that mindfulness; mindful learning and mindful processes are key mindfulness skills building strategies that may be integral to the cyclic and multi-dimensional resilience model put forward in **Figure 3** on page 46. It will be posited that mindfulness skills building develop aspects of the self (self-awareness and self-knowledge) which develop self-concept clarity and ultimately improve resilience.

Figure 3: Construct of Entrepreneurship Resilience and Mindfulness (Adapted from Baum, Frees and Baron, 2007 and research synthesis)



### 2.2.1 A critique of mindfulness

The exponential growth of mindfulness based interventions (MBIs) and the modern mindfulness movement in recent years has resulted in a marketization and commodification of practice that isn't without its critics. Kabat-Zinn (2015) as cited in Hyland (2017, p.336) has latterly acknowledged that there are "opportunistic elements from whom mindfulness has become a business that can only disappoint the vulnerable consumers who look at it as a panacea". It is fair to theorise that committed mindfulness practitioners would want to advocate mindfulness practice as a way of being rooted in the meditative practices and traditions from which mindfulness has emerged (Sun, 2014). However, there is a growing body of evidence to suggest that insufficient attention has been given to the opportunistic elements Kabat-Zinn warned against with mindfulness fast becoming a commodified consumerist product.

The reductionist, commodified forms of mindfulness practice – popularly known as McMindfulness (Neale, 2011, Purser & Loy, 2013) have been brought about by cultural and epistemological shifts since Buddhist meditation was introduced into clinical and psychological settings. Critics of McMindfulness argue that it divorces mindfulness from its spiritual and ethical origins of Buddhist traditions and that in the rush to secularise mindfulness and present it as an isolated technique that serves purely instrumental ends may lead to a denaturing of the practice (Sun, 2014).

The emergence of the term McMindfulness originates from the term McDonaldisation which was originally coined and developed by Ritzer (2000). Ritzer's model is informed by Weber's writings to describe and explain the increasing technical rationalisation and standardisation of more and more aspects of social economic, political life and culture. At first glance it is arguable that commodified versions of mindfulness practices meet all four main elements of Ritzer's model i.e. efficiency, calculability, predictability and control through nonhuman technology. Kabat-Zinn's 8-week course structure has already been reduced, condensed and transmuted into online programmes meeting efficiency conditions. Self-reported mindfulness measurements have been heavily criticised

for attempting to calculate, count and quantify mindfulness and for some critics only measure a limited aspect of mindfulness which doesn't consider the ethical dimension of mindfulness. In considering Ritzer's predictability criteria MBSR/MBCT certainly satisfies the notion of order, routine, consistency and uniformity of outcomes. Kashdan & Biswas-Diener (2014) argue that there is little attention given as to why the 8 week MBSR package has to be done the way it is and potential alternatives not been thoroughly researched. Finally, the growth of online apps such as Headspace and Buddhify provides a rich example of Ritzer's fourth McDonadisation criterion – control through nonhuman technology.

However, critiques on mindfulness do not stop there. Debates centred around deracination, instrumentalisation and secularisation involve profound questions and will be looked at in turn.

### *Deracination*

Kabat-Zinn's pioneering work in introducing secularised mindfulness into the medical setting through his MBSR programme (Kabat-Zinn, 1982) was not developed in a vacuum, bare attention within Nyanaponika's writings was particularly influential in shaping Kabat-Zinn's conceptualisation of mindfulness for the western world. This focus on bare attention continues to permeate subtle permutations of Kabat-Zinn's philosophy. Neale (2011) and others (Purser & Loy, 2013; Fisher, 2010) state that with all the positive attention mindfulness receives, and for the psychological benefits it offers, it is still only one component of the overall Buddhist therapeutic approach known as the three educations (Fisher, 2010). The three educations typically involve moral and ethical development, and wisdom cultivation. In contrast, western mindfulness practice, is primarily presented as a type of concentration technique that at times is used to develop wisdom depending on the approach (Yi, 2017).

Purser and Loy (2013) argue that the rush to secularise mindfulness and present it as an isolated technique that serves purely instrumental ends may lead to mindfulness becoming a banal self-help guide technique that can reinforce the roots of greed, hatred and delusion that its original liberative purpose aimed to dissolve. On a practical level, some therapists have suggested that the

oversimplification of mindfulness may reduce its clinical utility and potential for lasting change (Huxter, 2007; Neale, 2011; and Dawson & Turnbell (2006). However, Purser and Loy (2013) give some insight into how mindfulness can retain its transformational potential when they note the distinction between right mindfulness (*samma-sati*) and wrong mindfulness (*miccha-sati*) and the importance of the quality of awareness being characterised by wholesome intentions. Dawson and Turnbell argue that mindfulness does not by default produce ethical and wise human beings and suggest that it can be easily turned to narcissistic and harmful ends, providing a cautionary tale of the way in which meditation enhanced the capacity to kill in the military elite of pre- WW11 Japan.

There is no doubt that the 'dumbing' down of mindfulness has its critics. Others, however are more optimistic suggesting that there is more than meets the eye with secular mindfulness programmes, which may be embedded within an implicit Dharma framework (Sun, 2014). Kabat-Zinn has noted that after a few weeks of MBSR many participants report transformations far beyond stress reduction which fundamentally change their perspective on life. Furthermore, Kabat Zinn (2011, p.298) suggests that:

the Dharma can be self-revealing. Using the framework of stress reduction, participants can explore the experience of *dukkha* without using that term, experience craving and clinging, investigate the possibility for alleviating that suffering, and explore a possible pathway for doing so, without explicitly learning about the four noble truths, the Eightfold Noble Path, or *sila*, *Samadhi* and *panna*

and finally

instructors can embody loving kindness, compassion, joy and equanimity, and introduce ways of cultivating these qualities without invoking the Four Immeasurables (Kabat-Zinn, 2011, p.299).

### *Secularisation*

For the reasons above, some critics have suggested that secular mindfulness may represent stealth or disguised Buddhism (Sun, 2014). Buddhism historically, has spread in popularity when it has been transformed to incorporate, complement and build on elements of native beliefs, to make it more palatable (Cohen, 2010), Kabat-Zinn's rationale in secularising mindfulness was based on

his vision to share the essence of meditation practice with people who otherwise never encounter or accept these practices (Kabat-Zinn, 2011) and to remove barriers for people who were seeking relief from suffering by leaving behind 'cultural baggage' behind and developing an 'American vocabulary' to make meditation commonsensical and relatable (Kabat-Zinn. 2011, p.267). The importance of defining mindfulness in the Western context has been echoed in various contexts from the clinical setting (Shapiro, 2009), to the scientific setting (Baer, 2011). The author agrees with Sun (2014) that Kabat-Zinn's pragmatic approach in secularising mindfulness and advancing a normative, demystified understanding was and continues to be a skilful and essential contribution in facilitating an accessibility and acceptability of the concept to its participants.

### *Instrumentalisation*

Hyland (2017) argues that the exploitation of mindfulness by industry and corporate culture has contributed massively to its degeneration in recent years. More broadly, mindfulness is operating within the context of modernity characterised by a pervasive calculative rationality orientated towards profit, productivity and efficiency (Dawson & Turnbull, 2006, p.62 as cited in Sun, 2014) and has been re-branded to promote neoliberal governmentality and produce neoliberal subjects (Walsh, 2017). The adoption of mindfulness by corporations such as Google's search inside yourself programme as a means of improving success and profits (Gregoire, 2013) makes the discourse of instrumentalisation particularly salient. Many Buddhists now fear that their religion is "turning into a designer drug for the elite" (Eaton, 2014, p.1).

It is likely that mindfulness techniques have garnered mainstream appeal, in part, because they allow people to privately manage their stress and well-being at little or no cost to state or corporate bodies. The high demand for mindfulness is not only driven by the overwhelming privatisation of stress under neoliberal governmentality (Walsh, 2017) but also by the near doubling of mental distress rates since the beginning of neoliberalism (Fisher, 2009). Purser and Hg (2015) challenge the arguments that the corporate takeover of mindfulness might work to change the culture and improve working conditions as many of the companies that offer mindfulness as forms of stress reduction are the cause of this stress in

the first place. The author acknowledges that these are strong arguments on the potential limitations of mindfulness, however feel that these are not unsurmountable with careful planning and selection of practitioner. More the author is in line with Sun (2014) who stresses that Kabat-Zinn's secularised mindfulness may represent a strategic and necessary scaffolding, framed in a culturally acceptable way whilst staying true to its Buddhist routes and with potential for lasting societal and cultural change.

### *Harm of mindfulness*

Although the empirical literature is growing and we have evidence that mindfulness-based programmes has many benefits, on the other hand, we have very little scientific information about the potential risks of mindfulness practice. Descriptions are emerging of problems or potential harm (Duggan et al, 2014) brought on by mindfulness practice, including panic, depression, and anxiety. In some more extreme cases, mania and psychotic symptoms have been reported (Shapiro, 1992). Unfortunately, psychological treatment is not always successful and occasionally it causes harm. In fact, research consistently shows that 5-10% of clients get worse with psychotherapy (Crawford et al., 2016; Lilienfeld, 2007). These problems seem to be rare, but nonetheless significant, and require further investigation and guidance.

The theoretical models that mindfulness draws from state that these pleasant, neutral and unpleasant experiences are part of the normal human experience and learning process (Williams & Penman, 2011). In people seeking help for stress, pain, or psychological disorders, unpleasant states are more likely to arise because they are part of the phenomenology of these problems. Randomized trials consistently show that mindfulness-based programs are more effective than no treatment, however, it is possible that a small proportion of participant's experience sustained deterioration or long-term harm. Harm is more likely to arise through misguided or inappropriate forms of mindfulness practice. In thinking about how to teach and learn mindfulness safely, we must consider the intensity of the practice (Kuyken, Warren et al. & Dalgleish, 2016), the vulnerability of the person (Williams et al 2014; Kuyken et al., 2015) and the quality of the mindfulness instructor/instruction. Ensuring participants' wellbeing and minimising risk and any chance of harm requires that mindfulness practices are offered with skill and care and this is a priority for future research.

### 2.2.2 Mindfulness in the context of the entrepreneur

Central to Kabat-Zinn's approach is the idea that to see the richness of the present moment, we need to cultivate what has been coined the "beginner's mind". Originally theorised by Suzuki (1970, p.21) "this does not mean a closed mind, but actually an empty mind and a ready mind. If your mind is empty, it is always ready for anything; it is open to everything". The contrast frequently is between the beginner's mind and the adult mind with the notion being that one should always keep their beginner's mind but it is perhaps more beneficial to avoid an either/or scenario (Darwin, 2014). As Ricard (2007, p.194) puts it "this is the paradox of humility, and of the learners work. To learn as adults – to truly learn, we must simultaneously be of a mind like a young child and be fully cognizant of all that we already know". Entrepreneurs like anyone else will be required to undertake many routine tasks, which require unconscious competence e.g. business reports, business meetings and emails. But there is the danger here of falling into skilled incompetence, a term introduced by Argyris (1986): "Skilled incompetence is a condition in which people are very good at doing things that have unhappy consequences even though they seem like the right thing to do". In the mindfulness literature there is often reference to the danger of 'automatic pilot' "functioning mechanically, without being fully aware of what we are doing or experiencing" (Kabat-Zinn, 1990, p.21).

One would argue that the aim of Kabat-Zinn's approach is to develop mindful competence whilst avoiding the act of mindlessness or "automatic pilot" (Langer, 1997) which is characterized by fewer cognitive processes, precluding attention to new information, relying on past categories and fixating on a single perspective (Weick et al., 1999; Weick & Sutcliffe, 2006). Levinthal and Rerup (2006) develop a similar argument when they challenge the tendency to "stereotype the two processes" of mindful and less-mindful behaviour, and thereby neglect the interrelationships between them. The former requires the ability effectively to carry out novel action in a flexible manner, coupled with a sustained high level of attention. The latter involves routine-driven behaviour and reinforcement learning - the development and operation of automatic pilot. Langer (1997) gives an example of the value of integrating beginner's mind and expert mind: "I have

wondered what might happen if hospitals teamed up novices and experts. They do that now of course, but the novices are supposed to learn from the experts and not the other way around. In my scheme, the learning would be mutual. They would be taught to respect that an expert may see what only her training can show her and the novice might notice what the expert was trained to miss” (2009, p.144). One would argue that mindlessness negatively impacts upon resourcefulness, which ultimately limits resilient action. In contrast individuals who are resilient adapt to the feedback from the environment and emerge from the adversity strengthened and more resourceful (Sutcliffe & Vogus, 2003; Youssef & Luthans, 2007).

However, entrepreneurs who escalate their commitment to a failing course of action persist in the same strategies with an increase in invested resources and end up throwing good money after bad (Detienne et al., 2008). There is an acknowledgment that there is a fine line between destructive persistence (i.e. escalation of commitment) and productive persistence (i.e. resilience) and that this demands the entrepreneur to exhibit high levels of self-regulation (Hayward et al., 2006). As self-regulation of attention is central to mindfulness (Bishop et al., 2004; Kabat-Zinn; 1994 as cited in Bergomi, Tschacher & Kupper, 2012), mindfulness may be pivotal in improving the entrepreneur’s self-awareness – a key component of resilience and alludes to an underexplored conceptual linkage between both constructs i.e. resilience and mindfulness.

The case for mindfulness centres on the idea of change (Darwin, 2014). With reference to the resilience construct, change following improved mindfulness has been associated with higher levels of self-esteem (Brown & Ryan, 2003); competence (Brown & Ryan, 2003); self-efficacy (Charles, 2010); sense of autonomy (Brown & Ryan; 2003) and optimism (Brown & Ryan, 2003). Studies have also demonstrated a negative correlation between mindfulness and absentmindedness (Herndon, 2008); dissociation (Baer et al., 2006; Walach et al., 2006), cognitive reactivity (Rae et al., 2009); difficulties in emotion regulation (Baer et al., 2006) and experience avoidance (Baer et al., 2004). Research has also begun to explore the association between mindfulness and cognitive processes with self- regulation (Masciampo & Baumeister, 2007), cognitive and executive functioning (Holas & Jankowski, 2013; Zeidan et al., 2010) and

cognitive flexibility (Moore & Malinowski, 2009) all being positively related. There are three specific empirical studies, which show promising links between resilience measures and mindfulness.

Fouereur et al. (2013) piloted a mindfulness programme to enhance the resilience of nurses and midwives and cited significant improvements. Pidgeon, Ford and Klaassen (2014) conducted a randomised control trial in human service professionals using retreat-based mindfulness and observed significant improvements in resilience measures at four months' post intervention.

Sharma et al. (2014) cited enhanced resilience as a key outcome after a brief, self-directed program. With just three studies it is important to note the plurality of meanings associated with both constructs in their research designs. All studies enacted different duration, content and dosage with reference to the mindfulness intervention. Fouereur measured depression, anxiety and stress as a conceptualisation of resilience whereas Pidgeon and colleagues operationalized resilience to include persistence, equanimity, meaningfulness, self-reliance and existential aloneness. Sharma utilised the Connor Davidson scale (2003) to include (optimism, hardiness and resourcefulness).

Despite methodological differences, overall these studies do however give promise that mindfulness practice will develop the construct of resilience and support the entrepreneur in developing the characteristics and capital to enact more developed processes, thus bringing about change. This idea of change is a paradox as mindfulness courses emphasise acceptance, and being-mode rather than doing-mode. The advice is to accept all that is happening and "recognize all this without trying to manage our experience in any way, without pulling away" (Brach, 2003; p.27). Nairn (1999, p.9) as cited in Darwin (2014) comments "Change will come about if we learn to work, skilfully with the mind but we don't make change the goal". Darwin (2014) goes on to emphasise that Linehan argues "The paradox of change versus acceptance runs throughout therapy" (1993; p208), while Rogers sees the paradox in a way that supports Nairn's comment: "The curious paradox is that when I accept myself just as I am, then I change. We cannot change, we cannot move away from what we are, until we thoroughly experience and are aware of what we are. Then change seems

to come about almost unnoticed” (1961, p.17). This adds weight to the argument that developing a greater awareness of what you are feeling and thinking (self-awareness) and why you feel and think the way you do (self-knowledge) gives you a greater ability to act (self-regulation).

### **2.3 The mindfulness-resilience link and dimensions of the self**

To be resilient requires action in the present moment and the ability to bounce back from adversity. The attributions people make about casual relationships between stimuli they encounter and in particular how they explain success or failure in their lives is particularly relevant for entrepreneurs in shaping their resilience in the face of adversity (Hedner et al., 2011). The entrepreneurs' self-efficacy (Bullough & Renko, 2013), self-awareness (Pradhan & Nath, 2012), self-regulatory processes (Trevelyan, 2011) cognitive ability (Haynie, Shepherd & Petzett, 2012) and cognitive flexibility (Haynie, Shepherd & Petzett, 2012) strongly influence decisions concerning entrepreneurial opportunity, activity and tasks. All of these capabilities and skills are correlated to mindfulness practice (see above). Resilient individuals experience more positive emotion (Hayward et al., 2010) and experience less negativity bias and cognitive distortion (Tugade & Fredrickson, 2004), which mindfulness training incorporates and has demonstrated positive and negative association respectively.

#### *Mindfulness and the development of resilience*

Mindfulness may have serious merit in improving the entrepreneur's affective, cognitive and self-regulatory processes that are pivotal to the development of resilience (Robson, 2003).

The evidence that mindfulness leads to improvements in the affective domain is growing. As with anger, disappointment and loneliness, emotions are habits, and like other habits they can be broken or altered. Mindfulness is unlike other self-focused constructs. The key difference is that self-focused constructs involve analysing, explaining, or interpreting what is observed, whereas mindfulness

involves observation of one's experience without "telling a story" (e.g. thoughts are just thoughts; Kabat-Zinn, 1990). For example, in response loneliness (many entrepreneurs can relate to this), introspection may result in explanations for the emotion, such as identifying past choices or personality traits that led to social isolation. Unfortunately, introspections are often wrong, and introspecting about the causes of negative emotions seems to have negative mental health outcomes (e.g. depression is a common issue amongst entrepreneurs). In contrast, mindfulness involves simply noticing thoughts and emotions as they arise without elaboration or rumination. This kind of detached observation, often called decentering (Segal et al., 2002), allows people to experience fairly aversive thoughts and emotions as temporary events rather than experiences that require a response or an explanation. This reduced reactivity associated with mindfulness should increase awareness of a wider range of emotions (Corcoran, Farb, Anderson & Segal, 2010). As Doyle (2017, p.119) states "when we walk away from each task, each day and each job without creating an identity out of it, no story, no problem".

Indeed, mindfulness seems to change the brain in some specific ways. Broadly speaking, mindfulness increases activity in parts of the prefrontal cortex, an evolutionary recent region of the brain that is important for many of the things that make us human (Gelles, 2015) and an area that seems to be more active when we are engaged in pro social behaviour and displaying emotions such as compassion, empathy and happiness. Holzel et al. (2010) showed that meditation increased grey matter in brain regions involved in emotion regulation, self-referential processing, and perspective taking all associated with improvements in self-awareness and self-knowledge. 16 participants took part in the study and had their brains scanned at regular intervals before, during and after an 8 week MBSR course. Practising mindfulness exercises for an average of twenty-seven minutes a day, resulted in participants reporting feeling less stressed after learning the MBSR techniques. The before and after MRI scans also showed that over the course of just 2 months, grey matter density had increased the hippocampus, a centre of learning for self-awareness. The work of Davidson & Lazar (2011) demonstrated a direct comparison between the practice of mindfulness and the architecture of our brains. An important point to note here is that our "plastic" brains can also work against us. If we indulge our basest

inclinations, our negativity bias, reacting to each negative emotion by engaging in ruminations about past wrongs or planning efforts to get even, these patterns will only become more engrained over time, “trapping us in a mental prison of our own making” (Gelles, 2015).

A randomised experiment conducted by Kiken and Shook (2011) compared a brief mindfulness induction to an unfocused attention control condition. Participants in the mindfulness group demonstrated less negativity bias in attitude formation and correctly classified positive and negative stimuli more equally than those in the control group. Recent studies have provided initial support for the effectiveness of mindfulness-based interventions in the treatment of generalised anxiety disorder, which is characterised by persistent and uncontrollable worry. Fisak and Lehe (2012) cited promising findings, which demonstrate an association between mindfulness and worry. A simultaneous regression analysis was conducted, and three of the 5 facets of mindfulness: non-reactivity to inner experience, non-judgement of inner experience and acting with awareness, were found to be significant predictors of worry symptoms, with the model predicting 34% of the variance in worry symptoms. This was corroborated in a study by Delgado et al. (2010), when they found that worriers who received mindfulness training improved in their ability to discriminate among their emotions more than individuals in a relaxation condition (Delgado et al., 2010).

The result of consistent unhelpful thought patterns can also be clearly seen on an MRI. In prolonged agitated subjects, the parts of the brain associated with fear and reactivity come online at the slightest disturbance and are slow to settle down (Gelles, 2015). However, through the same biological mechanisms, the practice of mindfulness changes our brain and our behaviour over time. The amygdala, an almond-shaped region in the middle of the brain that plays a central role in our stress reactions becomes activated when we experience a stressful situation. If the hippocampus (a seahorse-shaped region near the base of the brain, receives information taken in from our senses that it determines to be threatening, it activates the amygdala. When the amygdala is activated, our fight-or-flight response kicks in which pumps cortisol and other hormones through our system, raising our blood pressure, and clouding our judgement (Greenberg, 2017). During intense negotiations entrepreneurs will often move into survival mode with

resulting behaviour being anger, aggression, defensiveness but these are the very emotions, which we want to avoid and by default we are apt at making the situation worse. This is known as the “amygdala hijack” and this all or nothing reaction isn’t suited to a professional work scenario. Even a small amount of mindfulness has been proven to be an effective defence against an amygdala hijack (Greenberg, n.d). In study by Holzel et al. (2010), they found that meditation reduced the size of the amygdala hijack after just eight weeks of practice and endured long after time spent in sitting practice. Mindfulness is associated with greater clarity and discrimination of emotions. An experience sampling study by Hill and Updegraff (2012) found that individuals who scored higher on mindfulness (i.e. the non-reactivity subscale of the Five Facet Mindfulness Questionnaire) were more able to differentiate their emotions than individuals who scored lower on mindfulness.

The evidence that mindfulness leads to improvements in the cognitive domain is also promising (Holas & Jankowski, 2013; Moore & Malinowski, 2009). Mindfulness meditation is concerned with cognitive changes resulting from extensive meditation practice, where meditation is often conceptualised in terms of mental or cognitive training (e.g. Cahn & Polich, 2006; Carter et al., 2005; Slagter et al., 2007). Kabat Zinn’s operational definition of mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and non-judgementally to the unfolding of experience moment by moment (Kabat-Zinn, 2003, p.145) does acknowledge the components of attention (self-regulation) and cognition (orientation towards one’s experience) outlined by the meta-cognitive view of mindfulness put forward by Bishop et al., 2004 as an important aspect of mindfulness. Thus, mindfulness meditation encompasses “various aspects of attention as for instance the ability to focus and sustain one’s attention and a reduced proneness to distraction (Moore & Malinowski, 2009, p.177). Cahn and Polich’s definition of meditation as “practices that self-regulate the body and mind, thereby affecting mental events by engaging a specific attentional set” (Cahn & Polich, 2006; p.180), also indicates that training of attentional functions is an essential form of any form of meditation practice. Research that examines the effect of mindfulness on cognitive flexibility is currently lacking (Roemer & Orsillo, 2003). However, one such study that aimed to investigate attentional functions and in particular

cognitive flexibility was Moore and Malinowski in their 2009 study. Overall the results suggest that attentional performance and cognitive flexibility are positively related to meditation practice and levels of mindfulness. Mediators performed significantly better than non- meditators on all measures of attention and meditators reported higher levels of mindfulness than their non-mediator counterparts. This pattern of results suggested that mindfulness is intimately linked to improvements in attentional function and cognitive flexibility. This is an important psychological resource for entrepreneurs to develop if they are to face new and unexpected conditions with the ability to adapt cognitive processing strategies, as the situation requires.

The potential for mindfulness to develop cognitive flexibility; has been further supported in a study by Chiesa et al. (2011); who found that mindfulness meditation practices (MMPs) could be associated with significant improvements in selective and executive attention and ultimately cognitive abilities. As the theoretical premise of MBCT is that depressive relapse is associated with the reinstatement of negative modes of thinking and feeling that contribute to depressive relapse and recurrence (Segal et al., 2002) it is no surprise that reactivated negative thoughts and feeling can perpetuate into a depressive episode. A study by Kuyken et al. (2010) randomised control trial comparing MBCT with maintenance antidepressants showed that treatment effects are mediated by a decoupling of the relationship between reactivity of depressive thinking and poor outcome. Greater reactivity predicted worse outcome for participants but this relationship was not evident in the MBCT group. This further highlights the potential for mindfulness-based programmes to be an effective practice in the treatment of people with depression. As entrepreneurs have higher than average self-reported depression (Freeman, 2015) this may be a useful tool in the maintenance of good mental health. One would argue that the benefits that mindfulness can bring to the cognitive domain should not be overlooked, as many of the main processes leading to a mindfulness state are indeed cognitive in nature. What is important however is whenever our attention moves from relentless thought and over thinking to direct experience we move from a position of stress, anger and fear to one of aliveness, alertness and purpose (Doyle, 2017, p120).

Mindfulness is also thought to be important in disengaging individuals from automatic thoughts, habits, and unhealthy behaviour patterns and thus could play a key role in fostering informed and self-endorsed behavioural regulation, which has long been associated with well-being enhancement (Ryan & Deci, 2000). Several theories of self-regulation discuss the place of awareness and attention in the maintenance and enhancement of psychological behavioural functioning. One of these is self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2000), which posits that an open awareness may be especially valuable in facilitating the choice of behaviours that are consistent with one's needs, values, and interests (Deci & Ryan, 1980). In contrast, automatic pilot or controlled processing often precludes considerations of options that would be more congruent with needs and values (Ryan, Kuhl, & Deci, 1997). In this sense, then, mindfulness may facilitate wellbeing through self-regulated activity and fulfilment of the basic psychological needs for autonomy (self-endorsed or freely chosen activity), competence, and relatedness (Hodgins & Knee, 2002). That is, awareness facilitates attention to prompts arising from basic needs, making one more likely to regulate behaviour in a way that fulfils such needs. In a study by Brown and Ryan (2003) results provided evidence that mindfulness is associated with heightened self-knowledge, a key element of self-regulation. Evidence supporting the self-awareness aspect of self-regulation predicted stronger concordance between implicit and explicit emotional state. Indeed, Hart and Ivtzan's (2013) analysis of mindfulness research revealed that self-regulation is a core mechanism in both interventions whether it its creative mindfulness proposed by Langer or meditative mindfulness proposed by Kabat-Zinn.

From reviewing the evidence on mindfulness and the 3 domains of psychological fitness which lead to resilience it is felt that there is much evidence to support the view that mindfulness training may have a role to play in the development of resilience. Holas and Jankowski (2013, p. 240) allude to the contribution that mindfulness makes to all 3 domains when they state

the link between mindfulness and its benefits is probably mediated by a range of mechanisms, of which, in our opinion, the most important are:

- (1) Changes in perception of the nature of internal experiences (decentering: Fresco et al., 2007).

- (2) A reduction in self-focused attention, a decrease in the negative influence of ego-related processes of self-regulation (Shapiro et al., 2006 and
- (3) A caring and kind stance towards oneself, an attitude that might be described as self-compassion (Neff, 2003).

The author believes that Holas and Jankowski (2013) are making reference to the cognitive (1), self-regulatory (2) and affective (3) domains respectively which the author suggests are crucial resources that need to be developed. It is hypothesised that interventions focused on mindfulness skills building (learning and processes) should improve the consciousness of the experience and indeed dimensions of the self, resulting in improvements in one's resilience.

### *Dimensions of the self*

Mindfulness is believed to be intimately linked with the self and self-concept, with mindfulness practice thought to encourage insight into the true nature of self (Vago & Silbersweg, 2012). Indeed, cultivating awareness of the self is central to many mindfulness practices (Nhat Hanh, 1999). Given the observed relationship between mindfulness practice and experiences of the self (e.g. Berkovich et al., 2012, Farb et al., 2007), it may be expected that individuals naturally disposed to mindfulness would also evidence characteristic patterns of belief about the self and self-concept. Self-concept beliefs are thought to be fundamental for psychological wellbeing (Campbell et al., 1996). Specifically, self-concept clarity suggests greater self-knowledge, which in turn may encourage more consistent involvement with fulfilling pursuits and relationships (Deci, Ryan, Schultz & Niemiec, 2015). Conversely, a disorganized self-concept would be expected to undermine psychological wellbeing as a disorganised self would be incapable of providing a clearly structured internal valuation system (Hirsch, Mar & Peterson, 2012). Such disorganisation is believed to lead to behavioural uncertainty, which has been neuro-physiologically linked to emotional distress (Hirsch et al., 2012).

The self is a complex and contentious construct, despite a sense of self being one of the most basic human experiences (Klein, 2012). Exploration of this debate is beyond the scope of this thesis, but a growing number of theorists

endorse the self as a dynamic system (Marks-Tarow, 1999) emerging from patterns of relationship (Berkovich et al., 2014) between fundamental aspects of the self (James, 1890) e.g. self-awareness and self-knowledge.

The self has been commonly divided into a “minimal self” and a “narrative self” (Berkovich-Ohana & Glicksohn, 2014). The minimal self has been defined as “a consciousness of oneself as an immediate subject of experience, un-extended in time” (Gallagher, 2000), which we are referring to as self-awareness. In contrast, the narrative self “involves personal identity and continuity across time as well as conceptual thought” (Berkovich-Ohana et al., 2014) which we are referring to as self-knowledge. Wicklund & Duval, (1971) articulate this as two dimensions of self-awareness. Experiential self-awareness being the focused attention on moment-to-moment changes in what happens to us, and in us, at successive moments of perception (Thera, 1972). Reflective self-awareness being the “analysis of self-experience through more complex, higher-order cognitive functions” (Ghorbani et al., 2003, p. 241). Both dimensions can be temporary states (Wicklund & Duval, 1971) or dispositional traits (Fenigstein, Scheier, & Buss, 1975).

Self-concept is intimately linked with the narrative self and the requirement for self-knowledge. Expressly, self-concept is defined as “a cognitive schema that organises abstract and concrete memories about the self and controls the processing of self-relevant information” (Campbell, 1990, p.539). Markus and Wurf (1987) contend that self-concept is one of the most critical components in affective and behavioural regulation. This is promising in terms of the view put forward that in addition to improved cognition to be derived from enhanced self-knowledge, it may also have a positive impact on affective and self-regulation components of resilience. Self-concept, as a dispositional tendency, is also believed to exist at varying levels of clarity across individuals (Campbell et al., 1996). Self-concept clarity (SCC) is “the extent to which the content of an individual's self-concept is clearly and confidently defined, internally consistent, and temporally stable” (Campbell et al., 1990 as cited in Hanley et al, 2017, p.335). In short, SCC refers to the clarity with which the self is known. Several studies support the link between SCC and PWB (Diehl & Hay, 2011), finding SCC to be associated with more positive relationships (Ritchie, Sedikides, Wildschut,

Arndt, & Gidron, 2011), greater purpose in life (Bigler, Neimeyer, & Brown, 2001), increased autonomy (Diehl & Hay, 2011), and greater self-esteem (Campbell et al., 1996). Despite evidence supporting the benefits of SCC, how SCC is developed and the characterological qualities encouraging greater SCC are largely unknown. Fundamentally, “SCC would suggest greater self-knowledge and this appears to require self-awareness” (Hanley et al., 2017, p.335). Vago and Silbersweig, 2012 make the case for dispositional mindfulness, with its demonstrated connection to self-awareness being one such quality that may serve to develop self-knowledge and sharpen SCC.

Although mindful awareness of such self-related processes can be contrasted with cognitive self-related functions, which create self-knowledge and a coherent self over time (Gallagher, 2000) the author concurs with preliminary evidence that there is an association between dispositional mindfulness and self-concept beliefs, extending parallel work suggesting a relationship between the cognitive state of mindfulness (self-knowledge) and experiences of the self (self-awareness) (e.g., Berkovich-Ohana et al., 2012; Farb et al., 2007). The Buddhist routes of mindfulness was to realize the insubstantiality of the minimal self or self-awareness (Nhat Hanh, 1999), a claim that is supported by preliminary empirical evidence among accomplished mindfulness practitioners (Dor-Ziderman, Berkovich-Ohana, Glicksohn, & Goldstein, 2013). Mindfulness effects on enhancing perceptual clarity while reducing bias related to distorted self-schemas, mindfulness may increase awareness of the narrative self or self-knowledge (Vago & Silbersweig, 2012). Mindfulness interventions relating mindfulness to the self has mainly emphasized shifting experiences of the self as a result of mindfulness practice (e.g., Berkovich-Ohana et al., 2012; Farb et al., 2007), but it is also likely that being disposed towards mindfulness would also be related to characteristic experiences of the self. Evidence suggests that mindfulness practice disengages self-referential processing networks (e.g., Farb et al., 2007), potentially relaxing habitual patterns of belief about the self during the course of practice.

Similarly, it may be that more dispositionally mindful individuals are prone to relax habitual beliefs about the self in general, increasing the clarity with which the nature of the self is perceived. Thus, individuals naturally disposed to

mindfulness would be expected to evidence greater familiarity with and knowledge about the self. (Hanley et al., 2017).

In a recent study by Hanley and Garland (2017) they found that all mindfulness facets as measured on the FFMQ demonstrate significant direct relationships with self-concept clarity. Examination of the FFMQ at the facet level appears to suggest that these five facets could be arranged to reflect two broad self-referential domains identified by Vago and Silbersweig (2012): 1) self-awareness facets (observing and describing) and 2) self-regulation facets (acting with awareness, non-reacting, and non-judging) which is beneficial to improving the domains of resilience. The non-judging facet was found to be most strongly associated with self-concept clarity. The non-reacting, acting with awareness, and describing facets evidenced similar magnitudes of association with self-concept clarity. Observing had the weakest associations with SCC and was the only DM facet negatively associated with SCC. All mindfulness facets demonstrated significant direct relationships of relatively equivalent magnitude with psychological wellbeing. Self-concept clarity was also found to be directly associated with psychological wellbeing. Fundamentally, mindfulness is believed to promote awareness of the self by encouraging engagement with the present moment, revealing greater clarity by relaxing biased or habitual cognitive repertoires (Vago & Silbersweig, 2012).

### **2.3.1 Mindfulness, self-awareness and its role in resilience**

The idea that an improved self-awareness through mindfulness skills building improves all 3 domains of resilience (affective, cognitive and self-regulatory) is central to this research. Mindfulness is an aspect of experiential self-awareness hence it makes logical sense that improvements in mindfulness will lead to improvements in self-awareness. It involves a pre-reflective mode of processing: an “enhanced attention to, and awareness of, current experience or present reality” (Brown & Ryan, 2003, p. 822). By focusing on living in the present, mindfulness supports physical and mental health by “disengaging individuals from automatic thoughts, habits and unhealthy behaviour patterns” (Brown &

Ryan, 2003, p. 823) and strengthening healthy regulatory processes by directing attention to psycho- logical, somatic, and environmental cues (Brown & Ryan, 2003).

According to Rochat (2003), there are five levels of self-awareness which unfold in early development and there are six potential prospects ranging from "Level 0" (having no self-awareness) advancing complexity to "Level 5" (explicit self-awareness). The development of self-awareness is important to the entrepreneur in developing their resilience. When one has explicit self-awareness not only is the self-seen from a first person view but its realized that it's also seen from a third person's view. They begin to understand they can be in the mind of others. For instance, how they are seen from a public standpoint (Rochat, 2003).

Individuals become conscious of themselves through the development of self-awareness (Rochat, 2006). This particular type of self-development pertains to becoming conscious of one's own body and mental state of mind including thoughts, actions, ideas, feelings and interactions with others (Geangu, 2008). "Self-awareness does not occur suddenly through one particular behaviour: it develops gradually through a succession of different behaviours all of which relate to the *self*" (Bertenthal & Fischer,1978). The monitoring of one's mental states is called metacognition and it is considered to be an indicator that there is some concept of the self (Couchman, 2014). It is developed through an early sense of non-self-components using sensory and memory sources. In developing self– awareness through self-exploration and social experiences one can broaden his social world and become more familiar with the self.

Moreover, a series of recent studies showed that self-awareness about cognitive processes participates in general intelligence on a par with processing efficiency functions, such as working memory, processing speed, and reasoning (Demetriou & Kazi, 2006). Albert Bandura's theory of self-efficacy builds on our varying degrees of self-awareness. It is "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations." A person's belief in their ability to succeed sets the stage to how they think, behave and feel. Someone with a strong self-efficacy, for example, views challenges as mere tasks that must be overcome, and are not easily discouraged

by setbacks. They are aware of their flaws and abilities and choose to utilize these qualities to the best of their ability. Someone with a weak sense of self-efficacy evades challenges and quickly feels discouraged by setbacks. They may not be aware of these negative reactions, and therefore do not always change their attitude. This concept is central to Bandura's social cognitive theory, "which emphasizes the role of observational learning, social experience, and reciprocal determinism in the development of personality" (Narayanan & Betts, 2012, p.134).

Badal and Streur (2012) argue that self-awareness is a key contributor to entrepreneurial growth and the success of an entrepreneurial business. The growth of the business depends on the person driving it i.e. the entrepreneur thus a good understanding of strengths and weaknesses will assist the entrepreneur in leveraging key strengths and to align them to the business core competencies. Knowing yourself better and understanding which core traits drives your decisions and your attitude is what is most important for increasing the probability of success (Tjan, 2012).

Going back to Kabat-Zinn's definition of mindfulness, he explains it as the awareness that emerges through paying attention on purpose and non-judgementally to the unfolding experience (2003, p.145). This suggests that mindfulness is about the achievement of a clearer experience of the present moment through the purposeful utilisation of awareness and attention. Vich (2015) depicts this awareness as a background radar of consciousness whose role is to continually monitor the inner and outer environments, while attention represents the process of focusing that awareness (Brown & Ryan, 2003). Kabat-Zinn's reference to "non-judgemental experience" places an emphasis on acceptance and in "being mode" which one would argue demands one to become self-aware of their own experience in relation to the environment and in being more aware of the present, which after all is the cornerstone of mindfulness.

The author would argue that this is where the magic of mindfulness lies. Developing a greater self-awareness is a catalyst for further change in the

cognitive and self-regulation domains. Without an appreciation of what you think and feel (self-awareness) the more unlikely it is that someone can consider why this is the way it is (self-knowledge) and do something to correct this habitual behaviour (self-regulation).

Self-awareness is an intrinsic aspect of mindfulness meditation and plays a key role in its salutary effects. (Lutz et al., 2015). Self-awareness enables people to have an enhanced internal awareness of their thoughts and emotions, while simultaneously having an improved external sensory awareness. Mindfulness involves consciously bringing awareness to you're here-and-now experience with openness, interest and receptiveness. Mindfulness is about waking up, connecting with ourselves, and appreciating the fullness of each moment in life. This heightened awareness brings about a calm and centred state, which also enables people to gain a sense of interconnectivity with others and their environment (Lutz et al., 2015). In Lutz's study on mindful self-awareness they found that neural patterns of mindful self-awareness emerge in meditation naïve participants shortly after developing a mindfulness practice but more pronounced in long-term meditation.

### **2.3.2 Mindfulness, self-knowledge and its role in resilience**

The idea that an improved self-knowledge through mindfulness skills building improves all 3 domains of resilience (affective, cognitive and self-regulatory) is also central to this research.

Self-knowledge is a term used in psychology to describe the information that an individual draws upon when finding an answer to the question "What am I like?" While seeking to develop the answer to this question, self-knowledge requires ongoing self-awareness and self-consciousness (which is not to be confused with consciousness). Simply, self-awareness is about being in tune with **what** you are thinking and feeling and self-knowledge is about understanding **why** you're thinking or feeling the way you do. The author believes that the two are interlinked at some greater level of cognition, however, a self-conscious component

emerges in addition to an increased self-awareness component, and then it becomes possible to ask "What am I like?", and to answer with self-knowledge (Carlson, 2013).

It is argued that by developing one's self-knowledge the individual entrepreneur develops one's ability to know themselves well, more competently regulate their feelings, thoughts and behaviour towards a given stimuli (Hartung & Subich, 2011). Developing this knowledge can help the entrepreneur to consider why he/she has these thoughts and feelings, if they are a true representation and why they are potentially unhelpful. This may help the person to become more resilient to negative thought processes and access new ways of thinking and feeling which improves their ability to self-regulate their behaviour. As Hanley et al., 2017 emphasizes; knowledge of self would appear to require self-awareness thus dispositional mindfulness, with its demonstrated connection to self-awareness (Vago & Silbersweig, 2012), might be one such quality serving to develop or sharpen self-knowledge. Hanley's 2017 study with 1089 undergraduate students indicate that self-concept clarity developed through greater self-awareness and self-knowledge mediates the relationship between dispositional mindfulness and psychological wellbeing, with the mindful tendencies to act with awareness and remain non-judgmental identified as most closely linked with self-concept clarity and psychological wellbeing. Thus, dispositional mindfulness may encourage greater clarity with respect to beliefs about the self, which in turn may be associated with greater psychological wellbeing (Hanley, 2017).

Carlson (2013) posits that there are many blind spots in self-knowledge, and these blind spots can have negative consequences for the self and for others (Dunning, Heath, & Suls, 2004; R. W. Robins & John, 1997; Tenney & Spellman, 2011; Vazire, 2010; Vazire & Carlson, 2011). Poor self-knowledge can lead to entrepreneurs over-estimating the positivity of his or her personality or status and may often be disliked by others (Anderson, Ames, & Gosling, 2008; Colvin, Funder, & Block, 1995; Paulhus, 1998; R. W. Robins & Beer, 2001). It can also lead to negative intrapersonal consequences, such as emotional problems (Baumann, Kaschel, & Kuhl, 2005; Kim & Chiu, 2011; Schröder-Abé, Rudolph, & Schüz, 2007; Schultheiss, Jones, Davis, & Kley, 2008). Lack of insight into how one will feel or behave in the future; tends to result in poor decision-making,

disappointment with unpredicted outcomes and ultimately lowers life satisfaction (Schkade & Kahneman, 1998; Wilson & Gilbert, 2005). None of these scenarios is beneficial to the entrepreneur in their pursuit of entrepreneurial goals.

Carlson (2013) puts forward the view that mindfulness may shed light on blind spots in self-knowledge and serve as a path to “seeing yourself as you really are” (p.173). Improved self-knowledge, as an outcome of mindfulness is one that he feels has been overlooked in the literature (Gyatso & Hopkins, 2006). Seeing yourself as you really are, demands self-perception (iFunder, 1999) and involves detecting and accurately utilizing relevant and available cues about one’s personality. Carlson refers to Vazire’s (2010) self-other symmetry model that identified two fundamental barriers to self-knowledge. These include informational barriers (the quantity and quality of information people have about themselves) and motivational barriers (ego-protective motives that affect how people process information about themselves). Carlson (2013, p.176) argues that the two-component conceptualization of mindfulness outlined by Bishop and colleagues (2004) provides a theoretical framework for understanding how mindfulness may serve as a path to self-knowledge. Broadly speaking, paying more attention to one’s current experience may help a person to overcome many informational barriers, and non-evaluative observation may help one to overcome many motivational barriers to self-knowledge.

Paying more attention to one’s current experience should counteract informational barriers to self-knowledge by increasing the amount of information entrepreneurs have about their patterns of thinking, feeling, and behaving. An important assumption is that mindfulness improves the ability to sustain one’s attention on the current moment and to process more information (Jha et al., 2007). If entrepreneurs can learn to execute superior executive attention skills (Chambers, Lo, & Allen, 2008; Hodgins & Adair, 2010; Jha, Krompinger, & Baime, 2007; Lutz et al., 2009; MacLean et al., 2010; Tang et al., 2007), less mind wandering (Brewer, Worhunsky et al., 2011, Mrazek et al., 2012) and a higher working memory capacity (Chambers et al., 2008; Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010; Zeidan, Johnson, Diamond, David, & Goolkasian, 2010); taken together, these cognitive skills may help people pay more attention to and notice more information about their patterns of feeling, thinking, and behaving.

Mindfulness also reduces reactivity and defensiveness to ego-threatening information thus reducing motivational barriers in entrepreneurs developing self-knowledge. This potential reduction in the negativity bias (Gelles, 2015; Beck, 1976) is helpful to the entrepreneur to cope with previous failings and not over think the propensity to fail again that Baumeister et al. (2001) refers to.

The author argues that the development of mindfulness and resilience is cyclical in nature (see **Figure 4** on page 71) with dimensions of the self, being the conceptual bridge between both constructs, which again is cyclical in nature. The cyclical nature of the model refers to the notion that as one develops their skills and their sense of self (SCC), they further develop psychological resources, which ultimately result in more resilient action. This process is repeated as one becomes more and more resilient i.e. improvements in resilience encourage one to become more mindful which in turn develops SCC and one's resilience. This greater SCC being a critical component in affective and behavioural regulation as Markus and Wurf (1987) have alluded to and which I believe alongside the cognitive component will develop one's ability to act with resilience.

This study aimed to adopt a model of mindfulness, which incorporates moment-to-moment awareness (Kabat-Zinn), cognition (Langer, 1997) and mindful practices (Sutcliff & Weick, 2007). The main aim being to encourage and cultivate an improvement in **awareness** that emerges from paying **attention** on purpose, on the present moment and **non-judgementally** to the unfolding of **experience** moment by moment. The author argues that in following the MBSR/MBCT design to the intervention where the key aim is to foster awareness, quality of attention and non-judgemental experience it is to essentially promote the development of seeing the self as you really are. This occurs when focused on developing both self-awareness and self-knowledge, which will ultimately improve the person's psychological resources and their resilience.

Vago and Silbersweig's (2012) framework of self-awareness, regulation, and transcendence (S-ART) is helpful in illustrating a method for becoming aware of the conditions that cause (and remove) distortions or biases that can result in the psychological outcomes that result in someone becoming more or less resilient. Vago and Silbersweig's view that "Mindfulness is described through systematic

mental training that develops meta-awareness (self-awareness), an ability to effectively modulate one's behaviour (self-regulation), and a positive relationship between self and other that transcends self-focused needs and increases pro social characteristics (self-transcendence)" (p. 1) is in line with the authors view of the potential benefits of mindfulness and moves further to demonstrate the link between mindfulness and resilience.

Therefore, the author hypothesises that resilience will improve during and following a mindfulness intervention:

**Hypothesis 1:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **resilience** midway through the course, immediately after course completion, and at 3-month follow up.

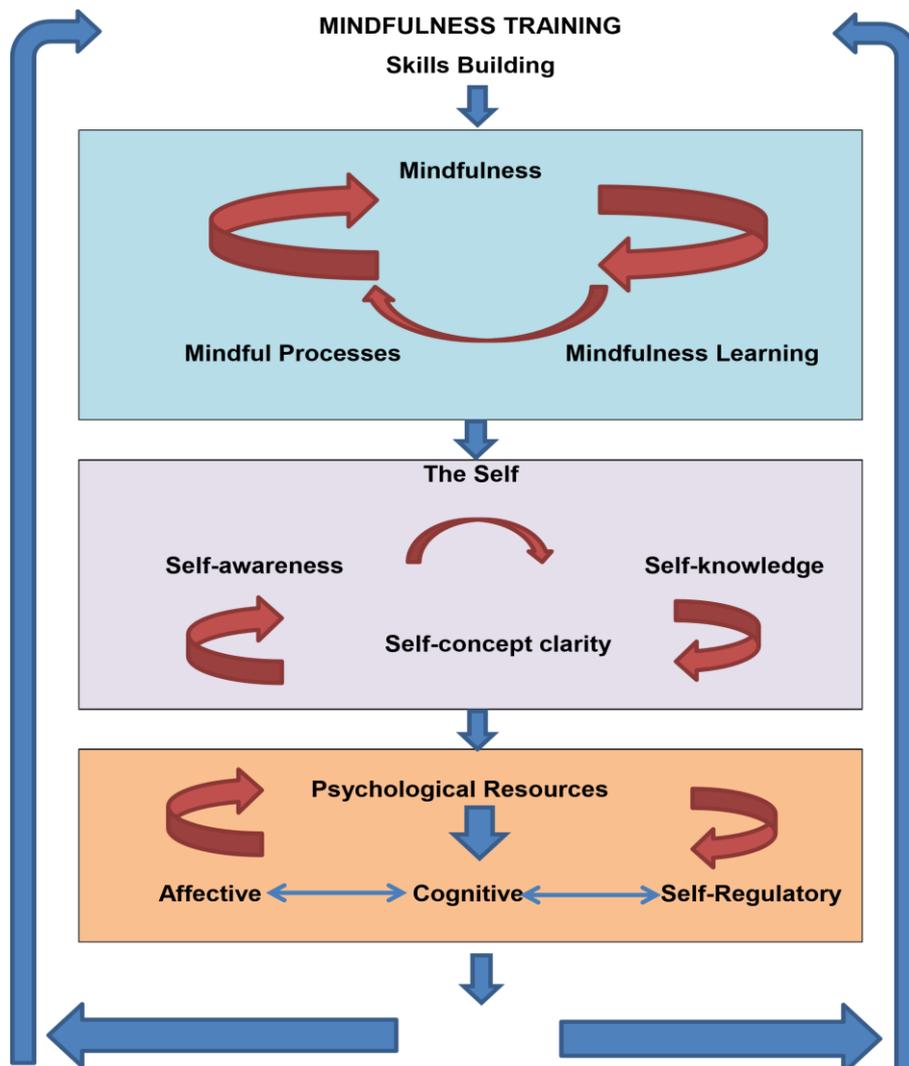


Figure 4: Theory of how mindfulness improves resilience

The author has put forward the argument that mindfulness improves through mindfulness training thus the hypothesis is that mindfulness will improve in response to a mindfulness based intervention. Therefore, the author hypothesized:

**Hypothesis 2:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **mindfulness** midway through the course, immediately after course completion, and at 3-month follow up.

In line with the findings of Hanley and Garland (2017), it was further hypothesised that all facets of mindfulness would improve following the eight-week intervention. Baer et al. (2008), Lutz et al. (2016) and others have also demonstrated that the five facets of mindfulness were more pronounced in long term meditators than meditation naïve subjects. Carmody and Baer (2007) showed that time spent engaging in home practice of formal meditation exercises (body scan, yoga, sitting meditation) was significantly related to extent of improvement in most facets of mindfulness and several measures of symptoms of well-being. In a study by Crane et al. (2014) results identified a significant association between mean daily duration of formal home practice and outcome (relapse of depression) and additionally indicated that participants who reported that they engaged in formal home practice on at least 3 days a week during the treatment phase were almost half as likely to relapse as those who reported fewer days of formal practice. These findings have important implications for the design of mindfulness-based interventions, in particular in relation to MBCT, where amount of participant engagement in home practice appears to have a significant positive impact on outcome.

It therefore seemed plausible that mindfulness practice, modality, duration of practice would have a bearing on improvements in mindfulness thus the author hypothesised the following sub hypotheses for Hypothesis 2 to include:

**Hypothesis 2a:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels on of the **mindfulness facets** (observing, describing, acting with awareness, non-judging, non-reacting) midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 2b:** Participants who complete daily mindfulness practice course will report significantly higher levels of **mindfulness** midway through the course, immediately after course completion, and at 3-month follow up.

### *Psychological wellbeing*

As previously discussed previous studies have corroborated an important role of resilience in mindfulness exerting its beneficial effects in terms of psychological wellbeing (Bajaj & Pande, 2016) thus the following hypotheses emerged.

**Hypothesis 3:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **life satisfaction** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 4:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **perceived stress** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **mood disturbance** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5a:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **anger hostility** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5b:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **confusion-bewilderment** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5c:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **depression dejection** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5d:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **tension anxiety** midway through the course, immediately after course completion, and at 3-month follow up.

## **2.4 Summary of Chapter**

From reviewing the available literature, it has become even more apparent that the search for a consensual definition and operationalisation of key constructs

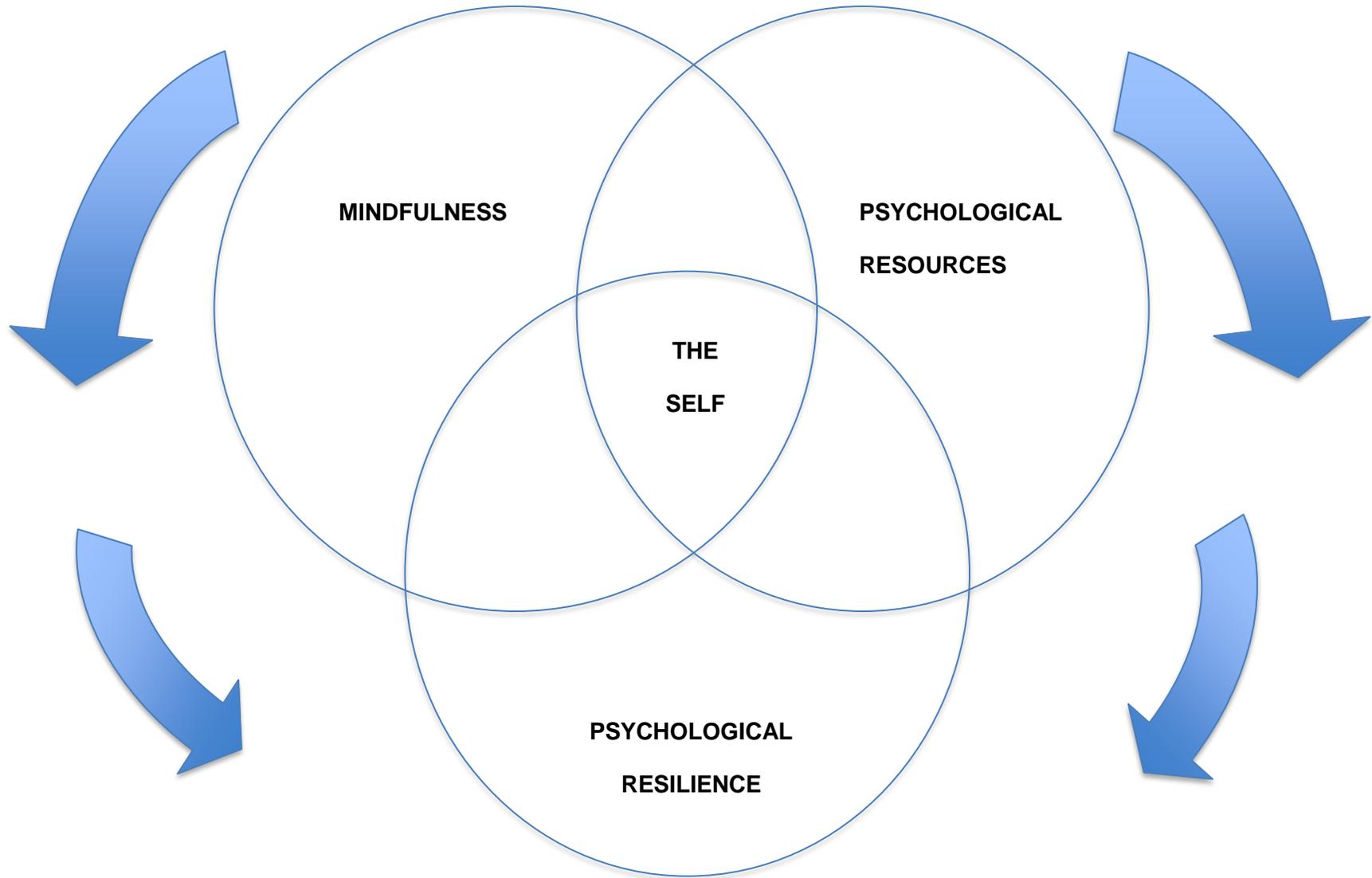
(resilience and mindfulness) is not without its difficulties. With no fewer than fifteen measures of resilience (Windle et al., 2011) and eight measures of mindfulness (Bergomi et al., 2013) it was imperative that in moving forward there was a clear statement on what these constructs mean to the researcher and what philosophical stance the researcher was adopting. The researcher also viewed mindfulness from a multi-dimensional standpoint but has focused on dispositional mindfulness in this study. Viewing resilience as the outcome of a dynamic interaction of personality characteristics, patterns of coping responses and a process of cognitive transformation to include resourcefulness, hardiness, optimism, positive emotion and self-regulation is based on the strength of the evidence surveyed linking the construct to the context of the entrepreneur.

Like the construct of resilience; the author argued for a more holistic model of mindfulness, which incorporates moment-to-moment awareness (Kabat-Zinn, 2003), self-regulation of attention (Bishop et al., 2004) cognition (Langer, 1997) and mindful practices (Sutcliffe & Weick, 2007). It is argued that the conceptual relationship between both constructs (i.e. mindfulness and resilience) exists and that the key components of resilience in the entrepreneur can be both learned and improved over time through mindfulness training. It is further postulated that dimensions of the self to include both self-awareness and self-knowledge may be key components in the development of resilience, which alludes to the strongest association and underexplored conceptual linkage between both resilience and mindfulness. After all self-regulation of attention is the central element of mindfulness (Bishop et al., 2004; Kabat-Zinn; 1994) and also thought to be instrumental in entrepreneurs responding to adversity, developing both emotional and cognitive resilience to rebound and mobilise a subsequent venture (Hayward et al., 2010) and in developing entrepreneurial ambidexterity (O'Reilly & Tushman, 2007 as cited in Bryant, 2014). The author put forward the hypothesis that mindfulness may be very beneficial in developing all 3 domains of resilience i.e. affective, cognitive and self-regulatory. The author believes that developing resilience may take time as was observed in the study by Pidgeon and colleagues (2013), especially the personality component of the individual element, as it is a relatively stable construct.

## CHAPTER 3                      METHODOLOGY

This chapter explains the methods utilised within the study and provides detail on the intervention itself. Using a hypothetico-deductive approach, this chapter outlines the operationalisation of primary outcome variables, secondary outcome variables and control variables into measurable factors. In this case, there are 3 dependent variables, notably resilience, mindfulness and psychological wellbeing with the independent variable being that of mindfulness training. The process of defining concepts into variables allows them to be measured empirically and quantitatively therefore this is a crucial step in enabling the study to provide empirical evidence. The key measures used are discussed in detail and justified as to their suitability of use within the study.

In surveying the evidence, four immediate methodological implications emerged and were considered within this chapter. Firstly, it was important in moving forward that the researcher was clear on the definitions and operationalization of resilience, mindfulness and wellbeing. This involved further development of the working model presented in the figures and tables within Chapter 2 outlining the conceptual bridges between both mindfulness and resilience (**See Figure 5** on page 76). Secondly, the problems with definition raised questions as to the extent researchers are researching what they think they are measuring thus questioning validity of some studies. It was imperative that the study measured what it set out to measure (Trochim & Donnelly, 2008) i.e. resilience and improvements in resilience through mindfulness training. There was work to do regarding the conceptual rigour of the notion of mindfulness. Some critics of mindfulness would argue that there aren't enough randomized controlled trials or meta-analyses to make reliable inferences (Gartner et al., 2011; Bergomi, Tschacher & Kupper, 2013). Finally, if one accepts the view that mindfulness can improve resilience but it may take time then this in itself presented challenges around dose and content of the course provided for the intervention.



**Figure 5: Inter-related and cyclical nature of the link between mindfulness and resilience**

### 3.1 Philosophical Stance

The first way that entrepreneurship theory can be understood is from an ontological perspective. Objective ontology assumes that social and natural reality “has an independent existence prior to human cognition” (Johnson & Duberley, 2000; p.180). The objectivist or realist point of view shared by philosophers such as Socrates, Plato, Aristotle, Descartes, Locke and Hume; that truth is comprised of distinct objects with properties independent of the inquiring observer is one that the author grew up with albeit not explicitly aware of this at the time. Realists tend to believe that whatever we believe now is only an approximation of reality and that every new observation brings us closer to understanding reality, a view the author can relate to in reminiscing about my childhood. Positivism falls within the functionalist quadrant of Burrell and Morgan’s paradigm model (Burrell & Morgan, 1979) and has an ontological or real word assumption that is both objective and realist (Clark, 2013). The scientific paradigm rose to prominence during the enlightenment with the term positivism popularised from the work of Comte (Crotty, 1998) when he sought to apply the scientific paradigm to the social world (Cohen et al., 2007). The key tenants of positivism are that there is a discoverable reality, which exists independently of the researcher (Pring, 2000, p.59), that absolute knowledge of an objective reality can be observed (Easterby-Smith, 2009) thus linked to empiricism (Harre, 1981) and that the researcher and researched are independent entities (Scotland, 2012).

Researchers assuming a positivist approach fundamentally favour a scientific approach and generally tend to use tools of this nature in their methodologies (Scott & Usher, 1999). “Positivists look to use existing theory to develop a hypothesis” (Saunders, 2008; p.103) and aim to identify causal explanation and use deductive approaches to find out what kind of observations will demonstrate the truth (Collis & Hussey, 2003). As much as the author can empathise with the main beliefs of positivism the author found particular alignment with the subtle differences, which emerged with post positivism. Popper’s idea that truth is simply our belief of current tested hypotheses and that the principle of falsification

means that theories can never be proven true until all attempts to refute them fail; has resonated with my belief that truth is not a static form and hence why I can accept that old truths get replaced with new truths as our knowledge increases and old knowledge falsified. The idea that “every scientific statement must remain tentative forever” (Popper, 1959, p.280) is central to Poppers idea that the truth does exist but we might never reach it and one that as a realist I philosophically believe in.

As knowledge is tentative for post-positivists, hypotheses are not proved but simply not rejected (Cresswell, 2009, p.7). the author can relate to this and feel that Popper’s further development of positivism to incorporate the idea of falsification was an important breakthrough in the use of the scientific method. Historically, criticisms of this approach include the scathing argument held by Habermas (1972) that suggested that “scientific mentality has been elevated to an almost unassailable position – almost to the level of a religion (scientism) – as being the only epistemology of the west” (Cohen et al., 2011, p.15) with the fear of a developing view that all knowledge becomes associated with scientific knowledge. Horkheimer (1972, p.46) also argued a little less mordantly that:

Scientism silences an important debate about values, informed opinion, moral judgements and beliefs. Scientific explanation seems to be the only means of explaining behaviour, and, for them, this seriously diminishes the very characteristics that makes humans human.

When considering the values underpinning the voices of Habermas and Horkheimer both were sociologists and philosophers in the tradition of critical theory, which goes some way to elucidate the strength of their views. Whilst quantitative and empirical data can be perceived as more objective than other forms of data collection, it has to be acknowledged that it is still subject to value based influences and interpretations (Greenbank, 2003).

Based on the assumption that social and natural reality has an independent existence prior to human cognition, objective epistemology looks for causal relationships between variables, and locates reality, derived from sensory experiences, outside the individual (Schapper et al., 2005). That is, the

knowledge of a phenomenon is gained from taste, touch, observation and measurement (Burrell & Morgan, 1979). In adopting an objectivist epistemology, the researcher assumed that it was possible to neutrally observe the behaviour of social phenomena such as organisations. Provided the methodology is rigorous they believe they can collect objective evidence to test the truthfulness of their theories and that the techniques employed enable them to avoid bias (Johnson & Duberley, 2000).

The researcher adopted an objective ontology and objective epistemology in the design doing a positivistic hypothetico-deductive study influenced by the principle of justification introduced by Popper (1959).

### **3.2 Research design/methodology**

As previously stated, the aim of the study was to explore the potential use of mindfulness in the development of resilience in entrepreneurs. The study took the form of a pre-post intervention study with qualitative experiential data. There was one grouping variable and one within-participant independent variable. The grouping variable was entrepreneurship expertise and had three levels (nascent, first-time and serial entrepreneurs). The within-participant independent variable was the condition or treatment received (i.e. participants received 8 weeks of mindfulness training). There were fourteen measured dependent variables: resilience, overall mindfulness, observing, describing, acting with awareness, non-judging, non-reacting, satisfaction with life, perceived stress, total mood state, depression, anxiety, confusion, anger. All measures were taken across all participants on four occasions (week 1 labelled as baseline, week 4, week 8 and follow up at week 20).

### 3.2.1 Hypotheses

There were several clear predictions/hypotheses associated with the study; all are one-tailed. The first was that there would be a positive relationship between resilience and mindfulness and that it would increase in line with daily mindfulness training. The final hypotheses were:

#### *Primary outcome measures*

**Hypothesis 1:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **resilience** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 2:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **mindfulness** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 2a:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of the **mindfulness facets** (observing, describing, acting with awareness, non-judging, non-reacting) midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 2b:** Participants who complete daily mindfulness practice course will report significantly higher levels of **mindfulness** midway through the course, immediately after course completion, and at 3-month follow up.

#### *Secondary outcome measures*

**Hypothesis 3:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **life satisfaction** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 4:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **perceived stress** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **mood disturbance** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5a:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **anger hostility** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5b:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **confusion-bewilderment** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5c:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **depression dejection** midway through the course, immediately after course completion, and at 3-month follow up.

**Hypothesis 5d:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **tension anxiety** midway through the course, immediately after course completion, and at 3-month follow up.

### **3.2.2 Participants and setting**

Participants were 19 (13 male and 6 female) entrepreneurs operating in Jersey (see **Table 2** on next page), selected randomly from the list of entrepreneurs registered with Jersey Business. Jersey Business provides free, independent and confidential advice and support to business in Jersey. Working with businesses at all stages of development from start up to growth, they were ideally placed to support the study by advertising on the researcher's behalf to gain subjects.

Regarding age, the average age of participants was 42 years with the youngest participant being 29 and the oldest participant being 58. The majority of participants were graduates 63.2% with a further 42.1% having completed a postgraduate qualification.

**Table 2 Study demographics table**

Gender N (%)	Demographics (N = 19)
Female	6 (31.6)
Male	13 (68.4)
Highest Educational Attainment N (%)	
One or More NVQs	1 (5.3)
A Levels	1 (5.3)
HNC / HND	5 (26.3)
One Degree (BA / BSc)	4 (21.1)
Two or More degrees (MA/MSc/Phd)	8 (42.1)
Type of Entrepreneur N (%)	
Would be	3 (15.8)
First time	10 (52.6)
Serial	6 (31.6)
Age M (Std)	42.68 (8.67)

A description and explanation of the setting for the research was deemed important context in terms of the applicability of the study results and the existence and type of applicable local context (if any). As a secondary outcome measure of the study was around psychological well-being and there is deemed to be a relationship between resilience, mindfulness and psychological well-being, the researcher was particularly interested to explore whether there were any noticeable differences in Jersey in terms of mental health.

Located in the English Channel, between the southern coast of England and the northern coast of France, as a crown dependency the jurisdiction enjoys constitutional rights of self-government and judicial independence. Jersey is not part of the United Kingdom and has an international identity separate from the UK, but the UK is constitutionally responsible for the defence of Jersey. With an estimated population to be 102,700 comprising 51,900 females and 50,800 males (State of Jersey Statistics Unit, 2016), around 27 percent of the population are under the age of 25 and 16 percent of the population are aged 65 and over (State of Jersey Statistics Unit Census, 2011). Jersey has relatively low unemployment figures at 4-6 percent but income inequality in Jersey ranks worse than the UK (State of Jersey Statistics Unit, 2016).

In terms of productivity, the average economic standard of living in Jersey measured by GVA (gross value added) per head of population in Jersey in 2016 was £40,200, some 43% greater than the UK. Financial services accounted for about two fifths (41%) of total GVA in 2016 and is the largest business sector in Jersey accounting for some 45 percent of jobs. Average GVA per FTE for the finance sector was three times that of all other sectors at £67,000 which is the main cause of income inequality (JFSC, 2017).

There is currently very little information available on business start-up success but with Jersey having 0% corporation tax, low personal tax, no VAT and with relatively low regulatory red tape, it is an attractive proposition for business start-ups. Add to this its excellent accessibility to the UK and connectivity (number 1 globally for number of households connected to the internet at 98%-Digital Jersey, 2018) it is not surprising that Jersey creates more entrepreneurs per head of population than the UK (Jersey Business, 2018).

Jersey's statistics are positive in many of the key well-being statistics in comparison to the UK, with the population rating their overall health higher than the UK (Jersey Health Profile, 2016). Cancers and heart disease remain the major cause of death locally with premature deaths from cancer and liver disease amongst the worst compared to regions in England. Despite these statistics Jersey life expectancy is high and ranked in the top 10 percent worldwide (81 years for men and 85 years for women).

In terms of mental health average life satisfaction scores are higher in Jersey than most OECD countries, including the UK. However, Jersey residents report considerably higher anxiety scores than those in England (35 percent compared to 19 percent, respectively). This has been linked to financial stress as a result of high cost of living and house affordability. Despite high incomes 56% of households pay more than 30 percent of their gross income on housing costs (Jersey statistics unit, 2016).

### 3.2.3 Experimental design

Experimental designs are often touted as the most "rigorous" of all research designs or, as the "gold standard" against which all other designs are judged (Creswell, 1994). However, this is based on the premise that the experimental design has been designed in a way that internal validity can be claimed. Ideally in this type of experiment, two groups that are "equivalent" to each other would be recruited. One group (the program or treatment group) gets the program and the other group (the comparison or control group) does not. In all other respects, the groups are treated the same. They have similar people, live in similar contexts, have similar backgrounds, and so on. The key to the success of this experiment is in the random assignment. Acknowledging that the groups created will not be exactly the same, there is a reliance on the idea of probability and assumption that the two groups are "probabilistically equivalent" or equivalent within known probabilistic ranges.

This experimental design is intrusive and because an experiment is often an intrusion, you are to some extent setting up an artificial situation so that you can assess your causal relationship with high internal validity. If so, then you are limiting the degree to which you can generalize your results to real contexts where you haven't set up an experiment (Fields, 2018). This is to ensure high internal validity at the expense of external validity and the ability to generalise results to other real contexts. That is, you reduce external validity in order to achieve greater internal validity.

A key problem encountered in setting up this design was in the recruiting of participants and the availability of the practitioner. The key issues were that the sample wasn't large enough to create two groups and the author felt that entrepreneurs who did volunteer would not be prepared to volunteer their time and commitment only to end up in a control group not gaining the mindfulness training. However, the inability of the practitioner to run two groups side by side made it impossible to have a control group with the same practitioner delivering

the content. This in itself would have been an extraneous variable that could potentially alter the results of the study.

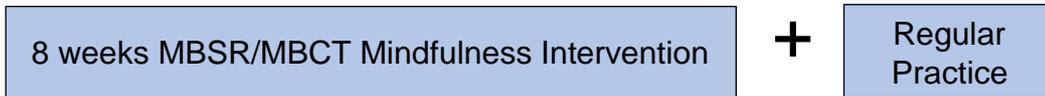
### *Final Quasi - Experimental Design*

Due to the issues above, the author had to resort to a final quasi-experimental design without a control group (See **Figure 6** on page 86). There is no doubt that the absence of the control group was by far the greatest limitation of the study and means the author has to be extremely cautious in the interpretation of the results in terms of making causal claims about the relationship between mindfulness and resilience. The author cannot be sure without the control group, that there are not some extraneous third unmeasured variable at play. What the author could do though is explore whether or not resilience improves following a mindfulness intervention (independent variable) in entrepreneurs and the strength of the association between the two. Although, the cause of the association was not able to be determined with absolute certainty, the author can still discuss causality. Well-established measures were selected which have been shown to have high construct and determinant validity, good psychometric properties and strong reliability. The author made a strong attempt to account for extraneous variables that may have an effect by keeping the session conditions consistent each week i.e. day, time, duration, room set up, including secondary outcome measures on psychological well-being (POMS-2A, perceived stress scale, satisfaction with life scale) and included control variables (i.e. practice and recording of life events). Statistical methods were adopted to limit the possibility that the results gained could have happened by chance and to assess the strength of the effect. The author accepts that internal validity was sacrificed in the absence of the control group due to practicalities and the novel nature of the study. However, the author argues that the random assignment of entrepreneurs in their recruitment from a larger sample of entrepreneurs, the real life context by which the participants were researched (not in an artificial scientific setting) and the addition of the qualitative data has strengthened the external validity of the study.

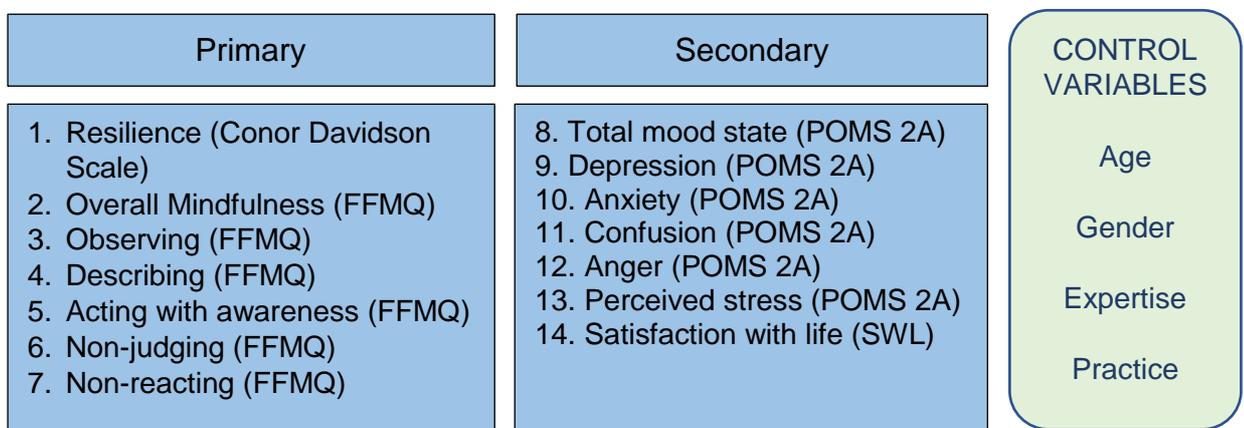
**SELECTION – Grouping variable**  
**Entrepreneurship expertise with 3 levels**



**CONDITION – The independent variable**  
**Within group variable**



**DEPENDENT VARIABLES (14 of.) and OUTCOME MEASURES (in brackets)**



**TRAIINGULATON OF DATA**



**ANALYSIS**



**Figure 6: Final quasi experimental design**

### *Triangulation of Methods*

The dominant design of this study was a pre-post intervention study which also collected qualitative data to understand the participants experience post-intervention. This involved the participants being asked to complete a post intervention impact questionnaire, and to maintain a practice diary, both allowing for qualitative data collection. It was decided to adopt methodological triangulation via primary outcome measures, secondary outcome measures, practice diaries and post hoc questionnaire to add depth to the quantitative data.

Convergence amongst methods increases confidence that we have measured what we intended to measure (Baer, 2011) and should reduce the potential effects of self-report bias and problems associated with the paradox associated with increased mindfulness (or not) and its subsequent scoring (Baer et al., 2006). This concept was also followed in relation to psychological wellbeing as it is a complex construct with multiple meanings thus multiple measures were used. As previously stressed, due to the apparent relationship between all 3 constructs, the researcher included psychological wellbeing as a secondary outcome measure but also as a means of triangulating the data. It should be emphasised that the analysis of the qualitative data was carried out in such a way as to add support or challenge to the results of the more dominant quantitative data set. That said irrespective of the type of dominant component design, the non-dominant component must remain well respected (Leech & Onweuegbuzie, 2009). It was imperative for integration that the quantitative section towards the end provided “meta-inferences and focuses specifically on integration” (Leech, 2014, p.887). The author argued that the use of participant comments in relation to the impact that the intervention had on one’s resilience was a welcome addition to the data analysis and was indeed helpful to the overall analysis and discussion of hypotheses put forward. It should be noted however; that during post completion of the questionnaires it became apparent that one of the questions was a leading question (Q2). Although this was deemed to be another limitation of the research design and thus findings should be treated with caution, it is felt that the response’s gave richness to the data and still worthy of inclusion.

### **3.3 The Intervention**

Following completion of the baseline measures, participants attended an 8 x 2-hour mindfulness intervention on a Saturday morning from 11.30am-1.30pm. The sessions were delivered by Dr Alessio Agostinis, a Chartered Consultant Clinical Psychologist with a Doctorate in Clinical Psychology. Alessio is also an Accredited Breathworks Mindfulness Teacher and an Associate Fellow of the British Psychological Society. He has extensive 15-years' experience with various psychological and health difficulties. He has trained over four years and become fully accredited with Breathworks Mindfulness, a leading international provider and part of the UK Network for Mindfulness Teachers and Trainers. He meets and maintains the standards set by the UK Network of Mindfulness Teachers, recommended for those who teach mindfulness courses. He has also contributed to the National guidance on Mindfulness for Clinical Psychologists, currently being developed by the British Psychological Society.

The strength of the evidence on mindfulness interventions i.e. MBSR interventions and MBCT interventions refer to an 8-week minimum dosage, which was deemed long enough for participants to grasp the principles of self-regulation through mindfulness and develop skill and autonomy in mindfulness practice (Carmody & Baer, 2009). Kabat-Zinn (1990, 2013) developed the first, secularised mindfulness package (MBSR) as an 8-week programme consisting of 26 hours of session time including 2-1/2 hours and an all-day class. This programme was then applied to a wide range of difficulties and contexts by both the author and subsequent researchers and developers, and the evidence-base on MBSR has typically maintained, developed workbooks and in many instances explicitly recommended this format as the minimum starter package (MBCT, MBSR, Breath works mindfulness for Health).

In the book *Full Catastrophe living* Kabat-Zinn refers to the “minimum dosage” being extremely important in developing efficacy of the intervention planned. This suggested format is based on suggested changes in emotional and even pain-related responses after as little as eight weeks (Burch & Penman, 2013; Desbordes et al., 2012). The benefits of eight week packages, typically delivered

in 2 hours per session include, by the end of the eight weeks, changes in grey matter associated with brain regions involved in learning and memory processing, emotional regulation and perspective taking (Chaskalson, 2011). However, Chaskalson also suggests that it is possible to deliver the package to groups between 8-25 people, possibly following a one-hour taster session, over four half days, at fortnightly intervals which may suit our participants. He stresses that it can be easier to manage the schedule of a four-session course as participants sometimes find that the half day format gives them more time to settle into the course each time and leave work problems behind. Carmody and Baer (2009) found no-significance when they examined effect sizes for psychological outcome variables in published MBSR studies, some of which had adapted the standard number of class hours. This suggests that adaptations to include less class time may be worthwhile for populations where time commitment may be a barrier to their ability or willingness to participate, which may be the case with entrepreneurs. However, this does reflect less the more evidence-based and well-researched MBSR format. Thus, for fidelity to the “standard dosage” the plan was to utilise a similar format in order to avoid compounding factors linked to reduced dosage, format, frequency etc.

### **3.3.1 Intervention design**

The intervention was built on the premise that a mindfulness intervention is a form of skills building which develops the key construct of resilience through the development of self-awareness and self-knowledge. Specifically, mindfulness skills building in this study utilises the concept of mindful learning, evokes the use of mindful processes and ultimately develops mindfulness. The intervention in this study implemented this approach in that the trainer developed the content to promote positive emotions and thinking through practice, training and improving knowledge to help build confidence. Confidence comes from feelings of wellbeing (hence it was important to include this within the study), acceptance of your body and mind (self-esteem) and belief in your ability, skills and experience. Specifically, the MBSR/MBCT intervention was designed to promote awareness

in the present moment. This includes raising awareness of one's immediate feelings (e.g. physical sensations, mood) and thoughts. The primary objective was to increase an individual's attention while withholding any evaluation of those thoughts and feelings. This increased attention allows individuals to more easily determine the accuracy of those thoughts and feelings.

### *Mindful Learning*

Harvard psychologist Ellen Langer (1978, 1989, 1997) is generally credited with introducing the construct of mindful learning in organisational analyses concerned with contrasting automatic and non-automatic information processing (Sims & Gioia, 1986) and into research on high reliability organisations (HROs) (Weick et al., 1999). Langer argues that mindfulness is a heterogeneous construct, yet "a mindful approach to any activity has three characteristics: the continuous creation of new categories, openness to new information, and an implicit awareness of more than one perspective" (Langer, 1998 as cited in Gartner, 2011, p.255). One could argue that Langer is more concerned with actions and behaviours associated with mindlessness where individuals engage in "blind" use of existing categories and distinctions", and demonstrate an 'unwillingness to disregard and depart from well-known categories, including the action and thinking they prescribe, and a simplified and non-nuanced appreciation of context, including the narrow use of narrow action repertoire" (Langer, 1997, p.4). The ethos and main tenants of Langer's mindful learning concept was weaved through the 8-week content.

### ***Mindful processes***

According to Gartner (2011), mindfulness in organisations causes the development of dynamic capabilities, when employees become aware of threats as well as opportunities, seize opportunities where appropriate, and reconfigure operations when faced with unexpected events. This is arguably where the academic literature on resilience and mindfulness overlap. Building on Langer's work and reviewing the literature on high reliability organisations (HROs) e.g. space shuttles, nuclear power plants); Weick et al. (1999) have introduced a set

of five sub-processes that generate collective mindfulness. Weick emphasises the usefulness of mindfulness for studies that address managing and organising in the face of uncertainty in order to enhance an organisation's resilience and enrich its action repertoire by learning and growing from previous episodes of resilient action (Weick et al., 1999; Weick & Sutcliffe, 2006, 2007). It is because of this capacity to introduce new concepts to existing ones, that mindfulness can be seen to be like "putting some new wine into old bottles, enabling practitioners to reflect on and change the rules of performance they are entering into and socialising in (Gartner et al., 2011, p.256).

Weick's ontology is that organisational phenomena emerge out of interaction between individuals. Thus, mindfulness and mindful learning occurs on the level of individual cognition and action, but can be facilitated (or inhibited by organisational structures and practices of organising.

In essence mindful learning centres on cognition, updating and action, which subsequently overcomes cognitive distortions (Weick & Putman, 2006) and has the potential to increase vividness and resilience (Gartner et al., 2011). The author believes that entrepreneurs can improve mindfulness by engaging in these processes, which will ultimately develop their resilience. First, both HROs and entrepreneurs passionately seek opportunities with their common alertness to stimuli i.e. opportunity recognition. Small errors are equally important to entrepreneurs as they are to HROs. Both operate in dynamic, ill structured and ambiguous environments thus entrepreneurs can potentially succeed by understanding how HROs identify and make sense of complex signals (Hovet & Riboton, 2005). Second, they pursue opportunities with enormous discipline; HROs and entrepreneurs both spot weak signals, deviations and changing situations (McGrath & MacMillan, 2000, p.2).

Third, they get essential buy in of everyone within their reach creating and sustaining networks of relationships (McGrath & MacMillan, 2000). Finally, when they exploit opportunities, both focus on the execution, especially adaptive execution. They are able to change direction as the opportunity evolves (McGrath & MacMillan, 2000). Rerup's (2005) conceptual paper outlines both the benefits

and costs of mindfulness. In line with the Weickian view of how mindfulness generates high reliability and performance in organisations, Rerup argues that for entrepreneurs, the quality of attention they bring to important decisions is more important than the experience they possess which is in line with the approach advocated by Kabat-Zinn. If one accepts that resilience of the entrepreneur changes as a result of the quality of attention, then it is fair to assume that mindfulness may be very beneficial in developing the individual's resilience. The ethos and main tenants of Weick and Sutcliffe's mindful processes concept was weaved through the 8-week content.

### **3.3.2 The addition of Acceptance Commitment Therapy (ACT)**

In the design of the content for the eight-week package, both the researcher and the trainer were mindful as to maintain the mindfulness component of a typical MBSR/MBCT course whilst ensuring that the material was applied to the context of the entrepreneurial environment. A review by McCracken and Vowel (2017) albeit specific to chronic pain, makes the case that Acceptance and Commitment Therapy (ACT) a 'third wave' model of psychological intervention (first wave was behaviourism, second wave CBT and third wave 'mindfulness based therapies') has a well thought through, researched and theoretically underpinned framework based on Relational Frame Theory and behavioural theory. McCracken and Vowel argue that mindfulness based interventions (MBIs: MBSR and MBCT mostly) fail to be based on a solid theoretical framework, have focussed mostly on outcomes and not on what processes deliver them and what specific areas they target. In addition, they argue that more recent attempts to crystallise processes that lead to change in mindfulness have created a number of potential areas but that these are not well defined and if anything, are being spread too thin that they create confusion. They posit that whilst ACT, on the basis of such solid theoretical framework, has led to a wide range of interventions in as wide a range of difficulties (chronic pain, anxiety, depression, OCD, anxiety, schizophrenia, etc) mindfulness has not done the same. McCracken and Vowel further argue that mindfulness has focussed a lot on the **what** but not on the **how**. They conclude

that ACT is mindfulness but with the addition of an explicit behavioural change focus in the 'values' and committed actions areas of its practical formulation model. ACT attempts to enhance psychological flexibility via six core processes of change: acceptance, cognitive defusion, contact with the present moment, self as context, value-driven behaviour, and committed action towards value-driven behaviour (Twohig, 2012). These six processes have been nicknamed the ACT Hexaflex – see **Figure 7** on page 94 (Hayes et al., 2012).

The author felt that as ACT aims to help the individual clarify their personal values and to take action on them, bringing more vitality and meaning to their life in the process, that this would resonate with the entrepreneurs need for something resembling goal setting but at the same time be a welcome distraction from obsessing over work related goals. The use of ACT in informing the intervention was deemed highly relevant in developing the entrepreneurs work life balance as focusing on values as opposed to goals may aid the entrepreneur in gaining an appreciation of the potential pitfalls of constant goal setting.

It was therefore felt that we should include an activity that encourages people to set explicit 'value based' goals. Both the author and the practitioner were concerned that if this wasn't included that it would be too great a shift for entrepreneurs and they would simply use mindfulness to become more efficient at the entrepreneurship obsession. It was collectively decided that this activity would be a good dose of broader awareness. The activity was added in week 8 nourishing resilience – see **Figure 8** on page 98. Life nutrition was used as a metaphor for having all aspects of nutrition, once gaps were identified using a visual analogue scale comparing ideas versus current levels of 'nutrition' (importance and satisfaction). Brought into awareness it is possible that entrepreneurs may focussing too much on work at the expense of other aspects of life nutrition. It was also important to understand the culture of the entrepreneurial environment. The addition of a goals based activity was also deemed to be helpful in meeting potential scepticism and challenge on the benefits of mindfulness.

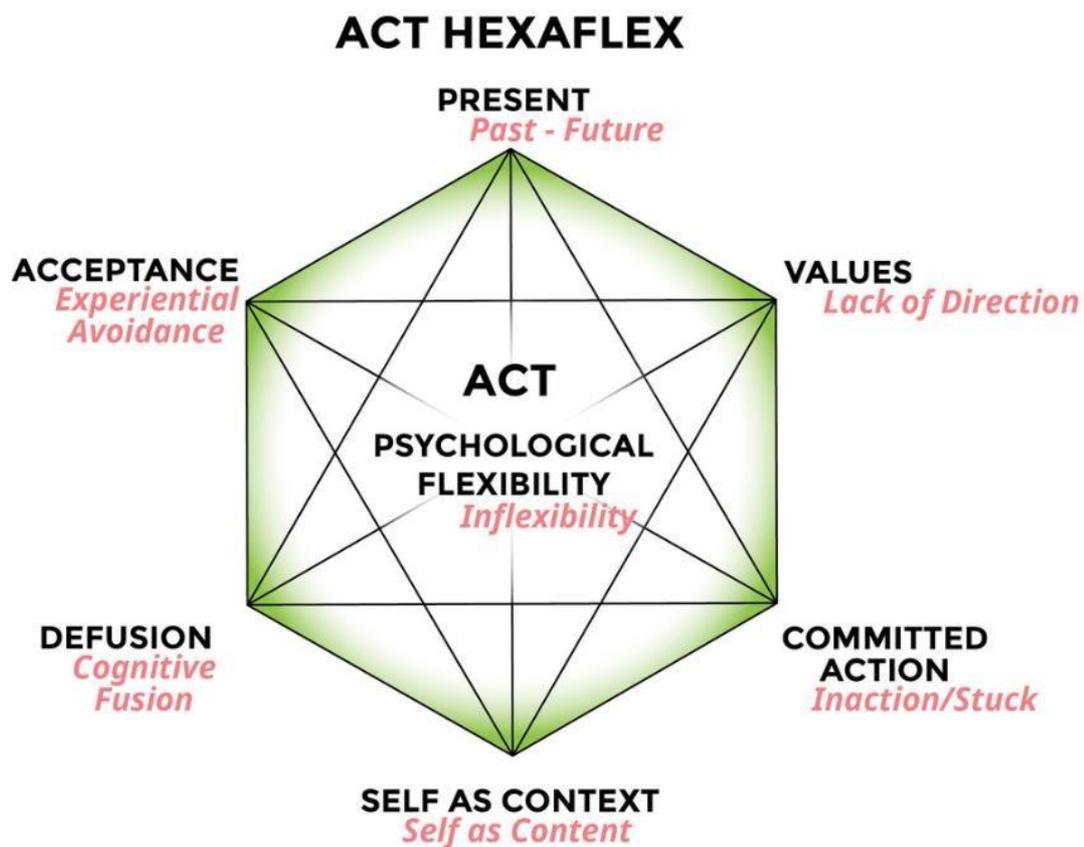


Figure 7: ACT Hexaflex. Retrieved from [www.mindtherapyclinic.com](http://www.mindtherapyclinic.com)

The final eight-week package provided to participants in a handbook (See **Appendix 1** on page 292) comprised of the following themes:

**1 Defining mindfulness and how it may impact on resilience.** This session introduced the entrepreneur to the potential benefits of mindfulness and how it may improve our resilience. Much of the stress entrepreneur's face is exacerbated by their resistance to unpleasant experience, and what they resist tends to persist. The result is that they are caught in a trap: the more they resist the more it persists. Mindfulness allows us to accept experience rather than reacting to it, which paradoxically allows us to let go of it. This lightens our load considerably, allowing us to get on with our life quite happily, even though it's not completely sorted. Key issues affecting entrepreneurs such as stress, burnout and exhaustion were discussed. The key practice this week included: Body Scan and doing one thing mindfully.

**2 When all your knowing doesn't work.** This session introduced the entrepreneur to the potential problems that are manifested by self-inflicted

thoughts and how to avoid rumination. When we are stressed we naturally try to do something about it, and this usually entails thinking and/or problem solving. The trouble with this strategy is that it doesn't work very well. In fact it's more often than not counterproductive when we feel it is becoming tiring, when we find going over and over the same information, ruminating/mulling over the same unhealthy repetitive, poisoning thoughts. Thinking about our stress can more often than not keep us stressed. An important aspect of mindfulness practice is to pay more attention to our senses i.e. body sensations, sounds, sights, tastes which brings us back to our actual experience in the moment. This greatly reduces the need to 'over-feed' on certain thoughts, when we get unpleasant or worrying thoughts. The key practice this week included: Mindful breathing and slowing down.

**3 What's your choice?** Now that we had established that thoughts are one of the main causes of stress, this session focused on further developing the ability to let go. Rumination trap us in a loop in which we try to solve our problems, while the very act of trying to solve the problem keeps us tied to the problem. Learning what to do when we have racing trains of thoughts that, before too late, have taken us far away from where we want to be and driven us at high speed towards anger, frustration, repetitive bad habits is an important tool in the entrepreneur's skill set. We can't just stop thinking, therefore one of the skills to learn is to notice thoughts as they arise in your mind and let them go. This is a liberating insight for entrepreneurs who regularly worry about scenarios that may never happen or with entrepreneurs who are hanging on to past failures. The key practice this week included: Mindful movement and taking a break/time out on the bridge.

**4 Driving in the right gear.** This session introduced the entrepreneur to the importance of work/life balance. Entrepreneurs need to learn to relax more and spend time in all 3 gears: threat, drive, and soothe as opposed to always being in "drive" mode. Life, as an entrepreneur as discussed earlier can be inherently difficult, with relentless pace of work being regularly cited as a source of burnout and depression in entrepreneurs. Financial worries, issues around relationships with work colleagues, difficulties in our relationships with family and friends, training our brain to be busy, multitask, push harder or go the extra mile

is a constant challenge. Mindfulness doesn't make everything nice and smooth and easy. Rather, it enables us to develop skills and inner resources to cope better - in fact to flourish - in the midst of the sometimes difficult and messy aspects of life. Learning how to be with unpleasant, difficult experiences without allowing them to 'press our buttons' is a key skill that entrepreneurs need to learn. This helps us in 'driving' the right chemicals to travel through our body and brain. How we approach our experience (thoughts, body, activities, emotions) and how willing we are to explore gently both pleasant and unpleasant experiences, can help us produce different chemicals that drive different states that can be helpful/unhelpful in different settings. The key practice this week included: anyone of the above main practices, with an emphasis of acceptance/neutral; doing something in neutral.

**5 Take in the good.** This session built on the last in that it encouraged the entrepreneur to develop an appreciation for what is good/positive in their life. There's pleasure, enjoyment, beauty and love out there to be appreciated that isn't derived from work. When we experience some difficulty in life we have a tendency to focus on it, often to the exclusion of all else, and especially the good things that are happening. On this week of the course we encouraged the participant to widen their gaze a little and notice the small pleasures of life, which often go unremarked in intensely driven people- the sun coming from behind a cloud and warming your face, a vase of yellow and blue flowers, a compliment from a friend, a job well done. We're not trying to 'think positive', just trying to level the playing field and to use our senses to absorb and retrain our 'negativity bias', our evolutionary drive to find threat. This was hugely helpful as cave people simply focused on survival, with less language resource and predominantly aiming at passing on gene copies. However, as evolved creatures with a not so evolved brain, that 'negativity bias' can turn onto its owner. By noticing the good things and letting them affect us we're working against what neuroscientists call the inbuilt 'negativity bias' in the brain and 'retraining' it to apply a broader filter to our experience. The key practice this week included: any of the practices and taking in the good.

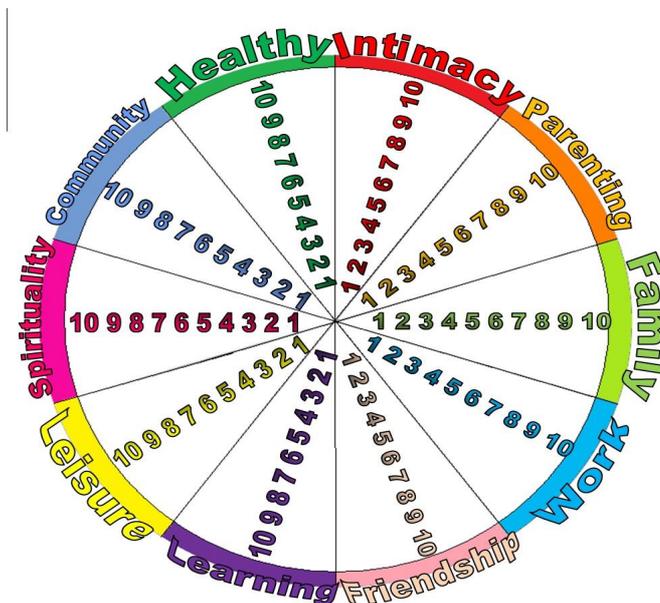
**6 Avoid crash and burn.** This session aimed to introduce the entrepreneur to the importance of developing self-awareness and took a self-reflective focus on what are the main causes of our stress and how to spot the signs. In a way the word mindfulness gives a wrong impression. People often associate the mind with the head, with the brain, with cool, analytical thought. Mindfulness certainly isn't that. It's simply awareness, and not a cool and detached awareness either - it's warm, gentle, and kind. We emphasized this all the way through the course but in this week we brought it right into center stage and introduced a kindness meditation. We also looked at a 'funnel' model of stress to start considering what behaviorally we do, when the going gets tough and life only presents the same choices for nourishment. Perhaps we only 'feed' on work and have a deficiency in closeness, relationships and leisure. Perhaps what felt nourishing and pleasant (a bit like one takeaway every now and again) has become monotonous, harder to 'digest' and no longer making us feel fulfilled. Perhaps time to step back and think about what drains us, what sustains us and how we can consider potential changes. The key practice this week included: kindly awareness practice + choosing a health sustainer.

**7 Life nutrition.** This session aimed to introduce the notion of self-compassion and compassion for others. When we're having a hard time it's easy to become preoccupied with our suffering, and this can become a trap. In the last part of the course we take the kindness meditation further, bringing others to mind and cultivating a warm, gentle, kindly awareness towards them too. This can be difficult, especially if some of them are the causes of your current stress and particularly because today we will test your mindfulness practice so far by inviting you to think of life as a 'pizza' or 'cake' of multiple flavours (valued areas of living). Then, we invited one to notice, thorough practical exercises which 'slices' (areas of life) you have perhaps had difficulty to get good nourishment from – to notice, allow the discomfort with kindness and then think about goals.

It is encouraged to consider alignment of goals and whether they are balanced. Research has shown that developing a kinder attitude towards self and others (perhaps in areas of life that have been but on the 'backburner') has a very beneficial effect on the state of our mind and body, including the reduction of

stress. The key practice this week included: any practice, preferably body scan, noticing particularly and accepting unpleasant experiences/sensations; accept a difficult experience, setting values based goals.

**8 Nourishing resilience.** On the final week of the course we reviewed everything we've learned and practiced, and we looked to the future and set explicit goals to improve on our life 'nourishment', whilst allowing nonjudgmentally thus practising reactions becoming responses. The course only works to the extent that we practice. Now that we've come to the end of the course, we discussed how one will continue to practice and continue to benefit from it? We discussed ways of keeping inspired and reviving our inspiration when it flags. We encouraged participants to look after themselves in the future. This isn't 'selfish', it's sensible. After all, if people are going to be any help to others, they have to be in pretty good shape themselves. We leave people with their 'secret recipe' for a flavorsome 'pizza' or 'cake' of life. The key practice this week included: committed action from Wheel of values.



**Figure 8: Wheel of Values, Extracted from Handbook for sessions. (See Appendix 1 on page 292).**

## *Practice*

In addition to the 2 hour weekly sessions, all participants were actively encouraged to complete daily mindfulness practice and record this activity by way of a practice diary (See **Appendix 2** on page 335). Kabat-Zinn (2009) stresses the importance of daily practice, in that it is only by making practice a “way of being” that the power of mindfulness can be put to practical use. “Even though the meditation practice is really about being rather than doing, it can seem as if it is a major undertaking, and it is. After all we have to make some time to practice and that does take some doing and requires intentionality and discipline. We sometimes put it this way to prospective participants, before we admit them to an MBSR programme.” (Kabat–Zinn, 2009, p. 355). He stresses...

You don't have to like the daily meditation practice schedule, you just have to do it on the disciplined schedule you are agreeing to by signing up and then doing the best you can. But in the interim, even if your mind is telling you constantly that it is stupid or a waste of time, practice anyway, and as wholeheartedly as possible, as if your life depended on it, because it does, in more ways than you think. (Kabat-Zinn, p. 355-367).

It was also deemed to be an important control variable in terms of understanding the affect (if any) that various levels of practice would have on the outcome measures . Within the practice diaries participants were also asked to comment on whether or not they had experienced or currently experiencing a recent major life event as it was deemed as an important control measure in the study.

### **3.4 Primary outcome measures**

The first step in constructing or selecting a questionnaire was to develop a detailed description of the variables to be measured by way of a comprehensive review of the literature. As discussed earlier, this was uniquely challenging in the case of resilience and mindfulness as they are both constructs, which are hard to define in precise terms. However, in selecting a measure for each construct it was imperative that the measure selected was in fact measuring the variable to

be measured as per the operational definition adopted within the study. Participants were each given a questionnaire pack at week 1, week 4, week 8, week 12 and post 3 month FU that included the following measures (see **Appendix 3** on page 350).

#### *Demographic Questionnaire*

A brief demographic questionnaire (See **Appendix 4** on page 356) was included within the research information pack to gather information such as gender, age, country of origin and education.

#### *Resilience measurement*

In a methodological review of resilience measurement scales Windle et al., 2011; found no gold standard amongst the 15 measures of resilience reviewed. Overall, the Connor Davidson Resilience Scale (Connor & Davidson 2003), the Resilience Scale for Adults (Friborg et al., 2003) and the Brief Resilience Scale (Smith et al., 2008) received the best psychometric ratings. In the absence of a gold standard, validity can be established by indirect evidence, such as construct validity. The 25-item version of the Connor Davidson scale was the only measure of the 3 that scored maximum points on this criterion. Further, it was decided that the Connor-Davidson scale was the most suitable measure to use as its development for clinical practice was in line with the fact that this study was an intervention. Its purpose with a focus on stress and coping ability as opposed to social capital was also most applicable to the psychological perspective and operationalization of resilience adopted by the researcher in this study. The mean age of the target population (mean= 43.8) was more in line with the mean age of the subjects within the study. The CD-RISC is a 25-item scale with each of the item rated on a 0-4 scale, with higher scores reflecting greater resilience (Campbell-Sils & Stein, 2007) CD-RISC has been evaluated for reliability, validity and factor structure and has been shown to have good psychometric properties with the ability to distinguish between participants with less and greater resilience (Ahern et al., 2006). The scale showed an adequate internal consistency ( $\alpha > .80$ ) in Connor and Davidson's original research (2003), Jorgensen and Seedat (2008) and

Karairmak (2010). In the current study the instrument achieved an alpha coefficient of .92.

### *Mindfulness measurement*

The operational definition adopted in the study and perhaps the most well-known is provided by Kabat Zinn (1994) who describes mindfulness as 'paying attention in a particular way: on purpose, in the present moment, and non-judgementally'.

Kabat Zinn also suggests that mindfulness includes 'an affectionate compassionate quality within the attending, a sense of openheartedness, friendly presence and interest'. Segal, Williams and Teasdale (2002) also note that mindfulness can be contrasted with behaving mechanically, or without awareness of one's actions, in a manner often called automatic pilot. It is important that not only does the questionnaire measure what we set out to measure i.e. the variable as defined by our operational definition of mindfulness but also assesses the skills that a contemporary mindfulness-based treatment is teaching. Several instructions are common to most mindfulness practices. Participants are typically asked to bring an attitude or stance of acceptance, allowing, openness, curiosity, kindness, and friendliness to all observed experiences, even if unpleasant and unwanted.

Most mindfulness questionnaires are based on definitions, descriptions and instructions such as these. Most of these questionnaires treat mindfulness as a dispositional or trait-like variable that is roughly consistent over time and across situations. However, it is assumed that the tendency to respond mindfully to daily experiences is subject to change with practice. Indeed, a central purpose of the questionnaire selected in this study is to assess changes occurring over the course of a mindfulness-based intervention and/or long-term mindfulness practice. However, mindfulness questionnaires have also been met with some scepticism as the use of self-report instruments can be subject to biases in which respondents misrepresent themselves, either deliberately or unconsciously (Bergomi et al., 2013). A related concern is that "even when respondents are being honest and candid, they are unable to report accurately on their own

tendency to be mindful because they are unaccustomed to noticing their aspects of their own functioning” (Baer, 2011, p.13) or paradoxically can score themselves lower the more mindful they become as they are more aware of their shortcomings. It was important to select a questionnaire where the developer has attempted to avoid this problem by not asking people to explicitly rate how mindful they are but instead developed writing items that use ordinary language to describe common and recognizable experiences that are consistent with mindfulness (or lack of).

Eight mindfulness questionnaires were assessed with the Mindfulness Attention awareness scale (MASS; Brown & Ryan, 2003) and the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) potentially the most appropriate for this study. The MASS questionnaire is a 15-item instrument measuring attention to awareness of present-moment experience in daily life. Items describe characteristics that are inconsistent with mindfulness, such as acting on automatic pilot, being preoccupied, and not paying attention to the present moment. Ratings are then reversed so that high scores represent high levels of mindfulness. The FFMQ questionnaire is a 39 item self-report instrument designed to allow for a multi-faceted assessment of mindfulness. Participants are asked to answer each of the items on a 5-point Likert-type scale (1=never or very rarely true to 5=very often or always true), and five subscale scores are calculated by summing the responses on the items making up each subscale. The five facets of mindfulness assessed by the FFMQ, corresponding to the five subscales are: observing (attending to/noticing internal and external stimuli), describing (noting or mentally labelling these stimuli with words), acting with awareness (as opposed to auto-pilot), non-judging of inner experience (refraining from evaluation of one’s sensations, thoughts and emotions) and non-reactivity to inner experience (allowing thoughts or feeling to come and go). A total mindfulness score is calculated by summing the five subscale scores. The FFMQ was developed through an extensive five-part study in which Baer and colleagues (2006) investigated the psychometric properties of five existing mindfulness questionnaires i.e. The Freiburg Mindfulness Inventory (FMI; Buchheld, Grossman & Walach, 2001; Walach, Buchheld, Buttenmuller, Kleinknecht & Schmidt, 2006), The Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith

& Allen, 2004), the Cognitive and Affective Mindfulness Scale (CAMS-R; Feldman et al. 2007); the Mindfulness Awareness Scale (MASS; Brown & Ryan, 2003) and the Southampton Mindfulness Questionnaire (SMQ; Chadwick et al. 2008). A factor analysis was then conducted of the combined pool of items to identify and select the items from these questionnaires and from these existing measures it was suggested that they contained five unique and interpretable facets of mindfulness.

Items that were identified as having the highest loadings on the five derived factors were selected to comprise the five subscales of the FFMQ. Internal consistency of the subscales was deemed to be adequate to good, with the following alpha coefficients obtained by Baer and colleagues (Baer et al., 2006): Observing =.83, Describing=.91, Acting with Awareness =.87, Non-judging=.87, and Non-reactivity =.75 and similar to other studies. The current study is in line with these values. (See Table 3).

**Table 3: Cronbach Alpha's for the FFMQ**

Facet	Baer et al (2006)	Fisak & Lehe (2012)	Current study
Observe	.83	.84	.84
Describe	.91	.91	.89
Act	.87	.88	.88
Non reactivity	.75	.82	.79
Non judging	.87	.86	.89

Examination of relationships between the mindfulness facets and related constructs revealed that the facets were differently related, in both strength and magnitude, to other constructs (Baer et al., 2006). This indicates that all of the facets provide useful information for understanding associations between mindfulness and other variables, and also provides evidence for the FFMQ's construct validity. For example, openness to experience was most strongly related to the Observing facet ( $r=.42$ ), emotional intelligence was most strongly related to the describing facet ( $r=.60$ ), and self-compassion was most strongly related to the non-reactivity facet ( $r=.53$ ). The non-judging facet had particularly

strong negative correlations with psychological symptoms ( $r=-.50$ ), neuroticism ( $r=-.55$ ), thought suppression ( $r=-.56$ ), difficulties with emotion regulation ( $r=-.52$ ) and experiential avoidance ( $r=-.49$ ), while the acting with awareness facet had the highest negative correlations with dissociation ( $r=-.62$ ) and absent mindfulness ( $r=-.61$ ).

Construct validity of the FFMQ was further assessed in a subsequent study that obtained data from four different groups, these being experienced meditators, demographically similar non-meditators, community adults and students (Baer et al., 2008). The meditators obtained significantly higher scores than the other groups, and meditation analyses revealed that, when considered separately, the facets of Observing, Describing, Non-judging, and Non-reactivity each mediated the relationship between meditation experience and wellbeing (Baer et al., 2008).

In conclusion, the FFMQ was the selected measure for mindfulness due to its multi-faceted understanding of the construct encompassing aspects such as non-reactivity to experiences and the capacity to describe inner experiences. The one dimensional assessment of mindfulness as the direction of attention in the present moment (as in the MAAS) was deemed to be too narrow a conceptualisation of mindfulness, in comparison to the more holistic construct of mindfulness adopted by the author to include mindful processes and mindful learning. The FFMQ incorporating mindfulness skills from the KIMS questionnaire was also favourable due to the nature of the mindfulness-based intervention in this study. The published literature on mindfulness questionnaires provides encouraging evidence that they are reasonably sound (Baer, 2011). Scores, for most of them are significantly correlated with each other, suggesting that authors have similar conceptions of the general nature of mindfulness in daily life. Overall, the research literature suggests that data from mindfulness questionnaires show patterns that are consistent with theoretical expectations.

### 3.5 Secondary outcome measures

The researcher has put forward the hypothesis that the conceptual bridge between mindfulness and resilience is centred on dimensions of the self and self-concept clarity developed through improvements in self-awareness and self-knowledge. Just as mindfulness and resilience is believed to be associated with the self and self-concept, self-concept beliefs are thought to be fundamental for psychological wellbeing (Campbell et al., 1996). Conversely, a disorganised self-concept would be expected to undermine psychological wellbeing. Mindfulness is believed to encourage greater wellbeing (Sedlmeir et al., 20012) and resilience is thought to play an important role in mindfulness exerting its beneficial effects (Bajaj & Pande, 2016). Specifically, individuals with higher mindfulness have greater resilience, and thereby increase their life satisfaction and affect (Bajaj & Pande, 2016). In light of said relationship between mindfulness, resilience and psychological wellbeing and predictions around psychological wellbeing also improving measures of resilience, it was imperative that aspects of psychological wellbeing were included as secondary outcome measures.

#### *Psychological wellbeing*

In line with Ryff's (1989) view that social, psychological, and physical factors all contribute to an individual's psychological wellbeing (Seifert, 2005) and two tiered approach to understand this, the author included both a positive and negative affect measure and life-satisfaction measure as a means of measuring psychological wellbeing. Adding to this the notion of balance alluded to by Dodge et al., 2012 and the fact that entrepreneurs often struggle to gain balance, the author included a stress measure.

#### *Affect*

Affect generally refers to an individual's "subjective sense of positivity or negativity arising from an event" (Carver & Harmon-Jones, 2009, p.183). In other words, affect reflects the feelings and emotions a person experiences in different

situations. Positive affect is the extent to which an individual “feels enthusiastic, active and alert” whereas negative affect is “a general dimension of subjective distress and un-pleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear and nervousness” (Watson, Clark & Tellegen, 1998, p.1063). Evidence suggests that individuals who demonstrate positive psychological wellbeing have a mean ratio of positive to negative affect of 2.9 and higher (Fredrickson & Losada, 2005). Furthermore, it is expected that individuals above this threshold will also be resilient in the face of adversity. In stressful situations, people can experience a range of negative emotions, however resilient individuals also draw on positive emotions when stressed to regulate emotions and to find positive meaning in their personal problems (Tugade & Fredrickson, 2004). Positive emotions have an enabling effect by broadening the thought-action repertoires and building personal resources, which can be called upon in times of adversity (Fredrickson, 2001).

Positive emotions have also been found to trigger enhanced emotional wellbeing (Fredrickson & Joiner, 2002), undo the physiological effects of negative emotions (Fredrickson et al., 2003) and assist in the quicker recovery from negative experiences (Tugade & Fredrickson, 2004). Whilst adversity is not usually something that is sought or desired by an entrepreneur, it does have a potentially beneficial effect. Personal development requires one’s status quo to be disrupted, and causes one’s mental models to be challenged – adversity achieves this, and initiates a change process. After a life-disrupting change, one cannot go back to how things were – one will become more agile or rigid, stronger or weaker, comfortable in uncertainty and ambiguity or constantly pushing for long-term clarity/predictability, better or worse. Experiencing adversity with limited resilience, on the other hand, produces a very different process. Powerful negative emotions and physiological changes as a consequence of the fight-or-flight response narrow the focus of the mind, which may not be entirely useful (Fredrickson, 2001). The problems with experiencing adversity with limited resilience may begin with coming to terms with the experience of the adversity, including assigning ‘meaning’ to the experience. This, in turn, may bedevil the reconciling stage of coming to terms with the impact and the implications of adversity/ downward negative emotional spirals lead to feeling overwhelmed with

associated dysfunctional coping. With time, further recovery, at best, may only lead to a feeling of being 'stuck' with a sense of only minimal coping. Overall, such an individual will battle to recover to the same level of wellbeing as before the adversity.

A 2014 meta-analysis of 209 clinical research studies with a total of 12,145 participants concluded that mindfulness training showed "large and clinically significant effects in treating anxiety and depression (Khoury et al., 2013)". Mindfulness-training programmes have also consistently been found to reduce self-reported measures of perceived stress, anger, rumination, and physiological symptoms, while improving positive outlook, empathy, sense of cohesion, self-compassion and overall quality of life (Keng et al., 2011). Mindfulness training is associated with reduced reactivity to emotional stimuli (Holzel et al., 2010) as well as improvements in attention and cognitive capacities (Brown et al., 2007). These may be some of the mechanisms by which health and wellbeing gains can be made – by relating to thoughts, emotions, body sensations and events in life more skilfully, practitioners may be less drawn into unhelpful habitual reactions and more able to make good choices about how to relate to their circumstances.

The Profile of Mood States 2<sup>nd</sup> Edition (POMS2) was published in 2012 by multi-health systems (MHS) to assess affective traits, mood and emotion. Evolving from the original POMS (McNair, Lorr & Doppleman, 1971, 1992) the POMS2 contains four self-report versions including an adult version, the POMS-2A. The POMS2 is applicable and useful to multiple settings. The POMS2 instrument was attractive as it can monitor change in mood disturbance during or following an intervention. The POMS2 contains six original subscales from the POMS including Anger-Hostility (AH), Confusion-Bewilderment (CB), Depression-Dejection (DD), Fatigue-Inertia (FI), Tension-Anxiety (TA) and Vigour-Activity (VA).

Unlike the POMS, the POMS2 contains a summary scale called Total Mood Disturbance (TMD) and a Friendliness (F) subscale for testing positive mood. The author feels that the sub-scales of the POMS are highly appropriate mood states to assess alongside one's resilience score. The author was interested in

measuring mood as well as emotions as a means of gaining a more stable assessment of one's affect or mood state as moods are longer lasting than emotions and have no clear starting point of formation. The POMS is only for use by a registered psychologist thus approval for its use was granted due to the involvement of Dr Alessio Agostinis.

The following mood states: Anger-Hostility (AH), Confusion-Bewilderment (CB), Depression-Dejection (DD), Tension-Anxiety (TA) were included and Vigour-Activity (VA) and Friendliness (F) scores were removed, this decision was based on:

- the author was interested in how mindfulness and resilience may impact on the entrepreneur's mental health due to this populations propensity to negative mood
- the strongest evidence base for mindfulness is around its utility around the reduction of anxiety and depression thus the author wanted to explore this further Vigour-Activity and friendliness are not the focus of a mindfulness intervention and were not relevant to the research.

The POMS2 scales are scored via the MHS online assessment center. The TMD score equals the sum of six subscales and does not include the F subscale. Raw scores are converted into T-scores with a mean equal to 50 and a standard deviation equal to 10. Confidence intervals and percentile ranks are included. Scores can be compared among different subgroups based on gender and age. The POMS2 was selected as it was felt to be highly relevant to the context of the study, it can measure diverse users, administration time is short, it has an online version for ease of completion and has been shown to have good psychometric properties (Heuchert & McNair, 2012).

In the original study co-efficient alpha values ranged from .82 to .96 for the overall POMS 2-A normative sample (See Table 4 below).

**Table 4: Cronbach alphas for the POMS2-A short.**

Heuchert & McNair (2012)		This study	
POMS2-A Short Scale	Total Sample	POMS2-A Short Scale	Total Sample
TMD	.94	TMD	.93
AH	.86	AH	.87
CB	.84	CB	.84
DD	.88	DD	.88
TA	.84	TA	.83

### *Satisfaction with Life*

The Satisfaction with Life Scale (SWLS) was developed by Pavot and Diener (1993); to assess satisfaction with the respondent's life as a whole. The scale does not assess satisfaction with life domains such as health or finances but allows subjects to integrate and weight these domains in whatever way they choose. The SWLS consists of five brief statements. Using a seven-point Likert scale respondents are instructed to indicate the extent to which they agree or disagree with each statement. It includes items such as "In most ways my life is close to my ideal" and "I am satisfied with my life". The SWLS exhibited good psychometric properties (Pavot et al., 1991) and shows good convergent validity with other scales and with other types of assessments of subjective wellbeing. Life satisfaction as assessed by the SWLS shows a degree of temporal stability (e.g., .54 for 4 years), yet the SWLS has shown sufficient sensitivity to be potentially valuable to detect change in life satisfaction during the course of clinical intervention. Further, the scale shows discriminant validity from emotional well-being measures. The SWLS is recommended as a complement to scales that focus on psychopathology or emotional wellbeing because it assesses an individuals' conscious evaluative judgment of his or her life by using the person's own criteria. The Cronbach alphas for multi-item scales such as the Satisfaction with Life Scale tend to be in the .80's (Diener et al., 1985), or even higher (between .90 and .96 in the study of Eid & Diener, 2004). In the current study a coefficient was **.94**.

## *Perceived Stress*

Fredrickson's (2001) elegant broaden-and-build model which details how negative and produce different psychological and mental processes, have different impacts on the way a person deals with stress. Kabat-Zinn wisely decided to make stress the focus of his effort to bring mindfulness to the masses. Stress is something we all experience, a universal form of suffering. We can get stressed over one thing or another but work is a significant source of our stress. Too much stress is not good for both our physical and psychological wellbeing. According to the World Health Organisation, stress costs global businesses £300 billion a year. This is even more illuminated in the entrepreneurship context with entrepreneurs experiencing a nefarious kind of stress known as burnout. A potent mix of feeling exhausted, overwhelmed, and spread too thin, burnout often afflicts workers in high-intensity roles, such as that of the entrepreneur. As stress is known to have a detrimental effect on one's resilience, stress was added as a secondary outcome measure in the study.

A number of randomised controlled trials of workplace mindfulness-based training courses have found positive effects on burnout, wellbeing and stress (Chisea & Seretti, 2009). Studies have shown that those practicing mindfulness report lower levels of stress during multi-tasking tests and are able to concentrate longer without their attention being diverted (Jha et al., 2010). Other research suggests that employees of leaders who practise mindfulness have less emotional exhaustion, better work- life balance and better job performance ratings (Reb et al., 2013).

The Perceived Stress Scale (PSS; Cohen, Kamarch, & Mermelstein, 1983) is one of the more popular tools for measuring psychological stress. It is a self-reported questionnaire that was designed to measure "the degree to which individuals appraise situations in their lives as stressful" (Cohen et al., 1983, p. 385). Internal consistency reliability, factorial validity, and hypothesis validity of the PSS are well reported. However, the test-retest reliability and criterion validity were relatively rarely evaluated. In general, the psychometric properties of the 10-item PSS were found to be superior to those of the 14-item PSS (Lee, 2012), while those of the 4 item scale fared the worst thus the 10-item PSS was selected for

use. The psychometric properties of the PSS have been evaluated empirically mostly using populations of college students or workers. Overall, the PSS is an easy-to-use questionnaire with established acceptable psychometric properties (Lee, 2012). Cronbach's alpha is a measure of internal consistency reliability, with a value  $>.70$  considered a minimum measure of internal consistency (Nunnally & Bernstein, 1994) Cronbach's alpha of the PSS-10 was evaluated at greater than  $>.70$  in all 12 studies Lee (2012) reviewed. The current study's alpha coefficient was **.71**. Despite this score being not much greater than the minimum requirement it was deemed acceptable to be treated as a reliable measure.

### *Control Measures*

The study was interested in assessing whether or not an effect on resilience persists after controlling other possible variables thus Individual-level demographic factors such as gender, age, education and experience level were considered because they may have systematic relationships with resilience or mindfulness. For example, human capital variables such as education and experience; have been shown to be positively related to resilience (Ayala and Manzano, 2014). Age has also been found to contribute to the development of resilience, although the research findings are equivocal in this area (Burns & Anstey, 2010; Campbell-Sills et al., 2009; Karairmak, 2010). Some studies that gender differences do not help to explain the degree of resilience in subjects (Burns & Anstey, 2010; Karairmak, 2010), while others conclude that such a relationship exists (Liebenberg, Ungar & Van de Vijver, 2012; Merrell, Cohn & Tom, 2011; Reed, Fazel, Jones, Panter-Brick & Stein, 2012; Tol, Song & Jordan, 2013). Both resilience and mindfulness have been shown to improve over time, (Carmody & Baer, 2008, Kuyken et al., 2010) hence why each participant completed the measures at the beginning, middle and as a follow up to the intervention i.e. 0, 4, 8 and 20 weeks. Entrepreneurs have also shown to be more resilient at different stages of their career (source) hence why it was a factor in its own right. Practice is seen as a crucial component of any mindfulness intervention and the frequency and duration of practice may have a direct correlation in terms of participant scores thus it is seen as a control variable within the study and therefore needed to be measured (Kabat-Zinn, 2009). In the final

analysis age, gender and entrepreneurial experience were not part of the analysis, as there was not sufficient enough of a sample size in terms of range to make meaningful comparisons.

In taking into account the view that resilience develops after practising skills learnt and putting them into practice when tested (Coutu, 2002), it was felt that an important control variable was to account for major life events that may potentially impact on one's resilience or indeed test their resilience skills. As Coutu (2002, p.50) states, "the fact is when we truly stare down reality, we prepare ourselves to act in ways that allow us to endure and survive extraordinary hardship. We train ourselves how to survive before the fact". The only participant to suffer a major life event just before commencement, during or within the 3-month follow up period of the mindfulness intervention was Participant 15. This event happened 1 week before the first mindfulness session (see Table 6 below) and involved the possibility of the person losing their house and business. Understandably this was a very difficult period of time for the person involved. As discussed earlier average attendance and home practice were also seen as control variables in the study and are documented in **Table 5** on the next page.

**Table 5: Participation in the mindfulness intervention**

Week	Mindfulness Intervention average attendance	Average duration of Home practice	Significant event
<b>Pre intervention</b>	n/a	n/a	CP 15
<b>1</b>	100%	88	-
<b>2</b>	100%	80	-
<b>3</b>	94%	89	-
<b>4</b>	100%	76	-
<b>5</b>	100%	84	-
<b>6</b>	100%	75	-
<b>7</b>	94%	73	-
<b>8</b>	89%	79	-
<b>Post intervention</b>	n/a	n/a	-
<b>Total (average)</b>	97%	81	-

### 3.6 Data collection

#### *Procedures*

Inclusion criteria for this study required participants to be aged 18 or over, meet the adopted definition of an entrepreneur, which is “a person who aims to or has set up a business or businesses, taking on financial risks in the hope of profit” which is in line with Atherton (2014) –(see research eligibility form in the research information pack in **Appendix 2** on page 335) and someone who falls into either one of the following categories:

1. Nascent entrepreneurs

Criteria would include that they would have a defined business idea, they have formulated a business plan; and currently seeking private investors to obtain venture capital.

2. First time entrepreneurs

Criteria would include that they would have a defined business idea, have incorporated the business; secured venture capital and begun trading.

3. Serial entrepreneurs

Criteria would include that they would have a defined business idea; they have incorporated more than one business; secured venture capital and trading with more than one business.

*Recruitment*

Participants were then recruited via an advertisement that was sent via Jersey Business and the Jersey Chamber of Commerce (see **Appendix 5** on page 357) asking people to apply by email. A total of 300 emails were sent to Jersey entrepreneurs with a response rate of 20% (60 responses). A final random sample of 40 were sent the follow up email containing a research information pack (see **Appendix 6** on page 358) which gave basic information about the purpose of the study, explained that it was voluntary, confidential and outlined what was involved should someone wish to participate. Potential participants would be excluded from the study if:

1. Their business did not require funding as this didn't meet the definition of an entrepreneur for the purpose of the study.
2. They had had previous experience of practising mindfulness. The researcher felt that this was important as criteria in that people who have had previous experience would potentially skew the results of the study.
3. They were receiving treatment for any form of mental health illness.
4. They couldn't commit to a minimum of 7 out of 8 sessions.

At this point of the study research eligibility forms were received from 24 participants with 2 being excluded based on exclusion criteria 1, 2 participants

were excluded based on exclusion criteria 2 and 1 based on exclusion criteria 3 thus leaving a total of 19 participants. All 19 participants were sent a follow up email containing an informed consent form (see **Appendix 7** on page 364) for completion. On receipt of these each participant was sent the Baseline Questionnaire pack and asked to complete all questionnaires one after the other on the Friday at 9am before the first session. Participants completed the Demographic questionnaire (Rivoallan, 2016) then the Connor Davidson Scale (Connor et al., 2001), then the Five Facet Mindfulness Questionnaire (Baer et al., 2006), then the Perceived Stress Scale (Cohen et al., 1983), followed by the Satisfaction with Life Scale (Diener, 2002) and POMS-2A questionnaire (Heuchert & McNair, 2012), all of which are described below. These questionnaires were completed again on the same day of the week and time at week 4, week 8 and week 20 (3 months after the last mindfulness session). At week 4 one participant pulled out thus leaving a final total of 18 participants data for final analysis.

At the end of the study (week 20) all participants were asked to complete a post intervention impact questionnaire containing 4 questions (See **Appendix 8** on page 366), which related to their perceived impact that the intervention had on them as a person and their ability to do and cope with their entrepreneur duties.

### **3.6.1 Normality assessment and methods of analysis**

The study naturally formed a mixed ANOVA because there were repeated outcome measures (i.e. resilience, mindfulness and psychological wellbeing) and within participant factors (Week 1, 4, 8 and 20). Normality assessment was carried out on the data and from reviewing the scores for skew and kurtosis and inspecting the histograms it was clear that there was some positive and negative skew and kurtosis for all measures. It is generally accepted in statistics that it is rare to get a completely normal distribution and less so with a small sample size therefore Z scores were used to assess normality in the distribution of the data. Scores out with the +or- 1.96 limit (Fields, 2013) were deemed unacceptably high

and subjected to further examination (See Table 11a and 11b on pages 139 and 140 - results out with normality limits are highlighted in yellow). The Shapiro-Wilk test was performed and was non-significant for all measures with the exception of the Profile of Mood states questionnaire (POMS2-A). Q plots and box plots were also considered to help make an informed decision based on all of the evidence.

Taking all tests into account it was decided that the data was not implying that the distribution in question was not significantly different from a normal distribution with the exception of the mood measure (POMS2-A). A parametric test (ANOVA) was deemed appropriate for all tests except the POMS2-A. The researcher deemed it appropriate to run both the ANOVA and non-parametric equivalent (Friedman) for this measure and compare the results. Findings using both type of analysis gave the same result, however the author used the Friedman test in the final write up. A Pearson's correlation were used to assess whether or not different measures correlated together (e.g. self-reported minutes of practice and end score of resilience).

### *Hypothesis testing*

By design, hypothesis testing limits the rate of Type I errors (false positives-rejecting the null hypothesis that is true) to a significance level. Researchers also wish to limit Type II errors (false negatives -not rejecting the null hypothesis that is false). The rate of Type II errors depends largely on sample size (increased errors the lower the sample size), significance level (when the established proof is high, the chances of overlooking a finding are also high) and effect size (a smaller effect size is more prone to Type II error). All of the statistical tests within the qualitative analysis used null hypothesis testing. The p value was used to avoid reporting false positives and observed power was used to avoid reporting false negative or significant finding (type 2 error).

In order to properly assess the hypotheses generated a number of different quantitative statistical tests was employed to help determine whether or not they were met. All of the statistical tests within the quantitative analysis used null

hypotheses testing, to determine whether or not a difference in scores was likely to be down to chance. This was determined by generation of the test statistic, based on the type of statistical analysis (e.g. F value for ANOVA & ( $\chi^2$ ) value ("Chi-square" for Friedman), and a p value based on the test statistic and the degrees of freedom. The P value based on statistical convention was set at an alpha criterion of 95% or .05 (Nuzzo, 2014). This means that for the following analysis a p value of below .05 was deemed statistically reliable, or that the difference is not likely to be down to chance, and reported it as such in combination with the mean scores, which allow direction of the effect to be determined. For observed power a power of .80 was deemed acceptable (Cohen, 1998). This means that for the following analysis an observed power greater than .80 was deemed to be statistically reliable that the test detected an effect when there was one.

### *Analysis of Variance*

Analysis of variance (ANOVA) is a collection of statistical models used to analyze the differences among group means and their associated procedures (such as "variation" among and between groups). In the ANOVA setting, the observed variance in a particular variable is divided into components owing to different sources of variation. In its simplest form, ANOVA provides a statistical test of whether or not the means of several groups are equal, and therefore generalizes the *t*-test to more than two groups. ANOVAs are useful for comparing (testing) three or more means (groups or variables) for statistical significance, which was appropriate, in this case as there were 3 types of entrepreneurs and 3 outcome measures. It is conceptually similar to multiple two-sample *t*-tests, but is more conservative (results in less type I error) and is therefore suited to a wide range of practical problems.

A test result (calculated from the null hypothesis and the sample) is called statistically significant if it is deemed unlikely to have occurred by chance, assuming the truth of the null hypothesis. A statistically significant result, when a probability (p-value) is less than a threshold (significance level), justifies the

rejection of the null hypothesis, but only if the a priori probability of the null hypothesis is not high.

In the typical application of ANOVA, the null hypothesis is that all groups are simply random samples of the same population. For example, when studying the effect of mindfulness training on resilience, the null hypothesis would be that all mindfulness training has the same effect (perhaps none). Rejecting the null hypothesis would imply that mindfulness training resulted in altered effects.

ANOVAs with repeated measures (within-subject factors) as was the case in this study, are particularly susceptible to the violation of the assumption of sphericity. Sphericity is the condition where the variances of the differences between all combinations of related groups (levels) are equal. Violation of sphericity is when the variances of the differences between all combinations of related groups are not equal. Sphericity can be likened to homogeneity of variances in a between subjects' ANOVA.

The violation of sphericity is serious for the repeated measures ANOVA, with violation causing the test to become too liberal (i.e. an increase in the Type I error rate). Therefore, determining whether sphericity had been violated was very important. Luckily, if violations of sphericity do occur, corrections have been developed to produce a more valid critical  $F$ -value (i.e., reduce the increase in Type I error rate). This is achieved by estimating the degree to which sphericity has been violated and applying a correction factor to the degrees of freedom of the  $F$ -distribution.

### *Friedman Test*

The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It was used as the continuous data violated the assumptions necessary to run the one-way ANOVA with repeated measures (i.e. the data has marked deviations from normality). In using the Friedman test, the author checked that the data passed the required assumptions for said test namely: 1: That one group that was measured on three or more different occasions, 2: That the group

was a random sample from the population, 3: That the dependent variable measured at the ordinal or continuous level, 4: That the samples did not need to be normally distributed. The data in this study met all 4 assumptions. The Friedman test compares the mean ranks between the related groups and indicates how the groups differed, and was included for this reason. As this was a non-parametric test the median scores were reported for each related group. The test statistic provides a ( $\chi^2$ ) value ("Chi-square"), degrees of freedom ("df") and the significance level (p value), which was reported. The Friedman test is an omnibus test, like its parametric alternative; that is, it tells you whether there are overall differences, but does not pinpoint which groups in particular differ from each other. To examine where the differences actually occurred, separate Wilcoxon signed-rank tests on the different combinations of related groups were ran.

#### *Post Hoc testing*

In order to test where specific differences or change in scores occurred a number of post-hoc comparisons were made between scores at different time points. Custom contrasts were used with for the repeated measure ANOVA analysis and Wilcoxon pair wise comparisons for the Friedman test .As these comparisons were all unplanned the Bonferoni correction was used (See footnote 1). In the case of multiple unplanned comparisons, it is considered good practice to use a corrected alpha criteria (Field, 2018). This is because with every test there is a chance of making a type 1 statistical error, i.e. a false positive or finding a statistically reliable difference when there is not one, and this risk increase when a large number of tests are run and in the case of unplanned tests. In this case the Bonferoni correction was employed which adjusts the original alpha criteria (In this case .05) based on the number of tests run, the alpha criteria used and degrees of freedom. For this study the Bonferoni corrected alpha was reported in brackets after the P value when used. .

## *Effect size*

Effect size refers to method of quantifying the difference between two groups but focused upon the size of the effect. 'Effect size' is simply a way of quantifying the size of the difference between two groups (Coe, 2002). It is particularly valuable for quantifying the effectiveness of a particular intervention, relative to some comparison thus useful in this context. It allowed us to move beyond the simplistic, 'Did it work or not?' to the far more sophisticated, 'How well did it work in a range of contexts?' Statistical significance testing can be vulnerable to detecting an irrelevant difference with a high sample size. Therefore, by placing the emphasis on the most important aspect of an intervention - the size of the effect - rather than its statistical significance, it promoted a more scientific approach to the accumulation of knowledge. For these reasons, effect size was an important tool in reporting and interpreting effectiveness of the intervention within the study.

The value it is represented by is determined by the test used i.e. Eta-squared in the ANOVA test (Rucharson, 2011), Kendall's W Coefficient of concordance for the Friedmans test (Marozzi, 2014) and the r statistic when using the Wilcoxon test (Kerby, 2014). It is considered to be good practice to combine these two scores along with descriptive statistics to best present statistical analysis to readers (Sullivan & Feinn, 2012). As there is no set guidelines for what constitutes as a large or small effect size, the author employed Cohen's (1988) rule of thumb as a heuristic, in this sense Cohen's rule of thumb is a practical but not guaranteed accurate estimate of what is considered small, medium and large effect sizes that we can use within the study as a general guide for the strength of an effect size. For example, Cohen (1969, p23) described an effect size of .01 as 'small', an effect size of .06 is described as 'medium' and is 'large enough to be visible to the naked eye'. Cohen describes an effect size of 0.14 as 'grossly perceptible and therefore large' for the ANOVA test. It is generally accepted that Cohen's interpretation guidelines of 0.1 (small), 0.3 (medium) and .5 (large) as a means of assessing the size of the effect is for use with the Wilcoxon and Friedman's test.

Cohen does acknowledge the danger of using terms like 'small', 'medium' and 'large' out of context. Glass et al. (1981, p104) are particularly critical of this approach, arguing that the effectiveness of a particular intervention can only be interpreted in relation to other interventions that seek to produce the same effect. They also point out that the practical importance of an effect depends entirely on its relative costs and benefits. In education, if it could be shown that making a small and inexpensive change would raise academic achievement by an effect size of even as little as .01, then this could be a very significant improvement, particularly if the improvement applied uniformly to all students, and even more so if the effect were cumulative over time.

### **3.6.2 Thematic analysis of qualitative data**

The questions within the post intervention questionnaire yielded qualitative data pertaining to perceived changes in habits and behaviour as a result of having attended the mindfulness training, the impact these changes have had on one's mindfulness and resilience and examples pertaining to the workplace.

Interpretation of the qualitative data were as a result of thematic analysis, which is a "method of identifying, analysing and reporting patterns within data" (Braun & Clarke, 2006; p.79).. Braun and Clarke's (2006) six-phase process of coding was followed to establish meaningful patterns within the qualitative data analysis.

The explanation of how the themes have emerged, and whether those themes fully capture the richness of the data was of utmost importance to the researcher. As the qualitative data was collated as a means of adding supportive evidence to the quantitative findings, the author aimed to provide a detailed and nuanced account of a group of themes within the data set as a means of adding a sense of depth and complexity to the research hypotheses. Themes within the data were identified using a theoretical or deductive 'top down' way of analysis (e.g. see Boyatzis, 1998; Hayes, 1997). This approach was driven by the author's theoretical or analytical interest in the area and the research hypotheses, and

was more explicitly analyst driven as opposed to data driven. Thus the coding was done with specific research questions in mind e.g. does participating in a mindfulness intervention improve resilience? Does participation lead to a change in workplace behaviour? and with a pre-determined coding frame against some general themes the author was interested in. In this case the author was interested in general themes (theoretical dimension) that previous research on the topic have identified as central benefits to be derived from a mindfulness intervention and central to the main study hypotheses to include **habit forming** and **resilience**. As the research had implications for practice the author was also particularly interested in how the mindfulness intervention may impact on **values-based behaviours**. How these 3 themes played out across the data was of particular interest to the author and helped to generate the 3 questions asked within the survey:

1. Have you observed any changes since attending and completing the course?
2. If you have observed changes how do you feel they have impacted on your resilience and mindfulness?
3. Please give the most significant examples?

Codes & sub themes were then derived from the raw data and initial coding process and allocated to the three general themes in line with the process outlined by Braun and Clarke (2006).

The analytical process involved a progression from description, where the data was simply organised to show patterns in semantic content, and summarised, to interpretation where there was an attempt to theorise the significance of the patterns and their broader meanings and implications (Patton, 1990) often in relation to previous literature (Frith & Gleeson, 2004).

The decision to include a concept as a sub theme under the pre prescribed general themes was made as a result of repetition recurring regularities (Guba, 1978, p.53) within the data. The author concluded the analysis with a search for any overarching themes running through all levels of the data. When the development of categories reached theoretical saturation within the (Strauss & Corbin, 1988) data it became a theme as opposed to a code. This process is described in detail below.

## *The 6 stages of the analysis*

### 1. Familiarization with the data

The author immersed herself in the data to become familiar with the breadth and depth of the content. This involved repeat reading of the data searching for patterns and meanings in relation to the 3 general themes: habit forming, resilience and values-based behaviours. The author began taking notes and developing ideas for coding.

### 2. Generating initial codes

This stage involved the production of initial codes from systematically coding the entire data corpus for as many codes and themes as possible related to the 3 themes. There were 63 initial codes for Theme 1: Habit forming, 46 initial codes for Theme 2: Resilience and 38 for the Theme 3: Work/life relationships. The initial coding process necessarily involved coding text on a line-by-line basis which was done manually using a combination of coloured pens and post-it notes. Codes identified features of the data that appeared interesting to the author, and referred to “the most basic segment of the raw data or information that could be assessed in a meaningful way regarding the phenomenon” (Boyatzis, 1998, p.63). The initial coding process was theory driven even if sub-consciously. The data was approached with the specific questions in mind that participants had been asked and the 3 general themes the author wanted to code around.

This involved coding to identify particular features of the data set. At this point there was a long list of different codes. Codes being shorthand labels usually a word, short phrase or metaphor (Carpenter & Suto, 2008). The following are 3 examples of participant comments from the data set: See **Table 6** on next page.

**Table 6 Example participant comments – derived from data set.**

Participant	Raw Data Item	Initial Codes
1.	<p>I am much more <b>aware</b> of whether I am <b>present</b> during everyday tasks. I am much more able to bring myself back to what I am doing and adopt a <b>calmer</b> and more <b>settled</b> state with more <b>positivity</b>. I feel more in <b>control</b> of my life. There is a definite improvement in my <b>resilience</b> and <b>mindfulness</b>. I already had a mindful style and regularly <b>practiced meditation</b>. This course came at a time of huge shift and upheaval in my life. I <b>learned</b> so much <b>about me</b> - The course really kept my <b>well-being</b> on track. Without it I may have lost my way with daily <b>practice</b>. Being able to <b>stop thoughts</b> throughout the day and bring myself back to the <b>present</b> is great. I am being a lot <b>less judgemental</b> of others – even strangers. I have <b>reduced relationship barriers between myself and other people</b>. So much more <b>aware</b> of my thoughts and the <b>power of the mind</b>. I am <b>happier and more content</b> and have less <b>negativity</b> in my head. I feel so much more <b>productive at work and I cope better</b>. I have a range of <b>tools</b> now that <b>helps</b> me.</p>	<p>Awareness Present Resilience Calmer Settled Positivity Mindfulness Practice Meditation Learning About me Well-being Thought stoppage Less judgemental Meditation Relationships Happiness Content Productive Work Coping Negativity Productive Cope Tools Help</p>

2.	<p>I am more <b>aware</b> of my <b>surroundings</b> and more <b>aware</b> of the need and ability to step aside even though I haven't always managed it. The last few months have been very <b>challenging</b> and <b>mindfulness</b> has helped me to avoid losing my <b>patience</b> and having a meltdown. I should have <b>practiced</b> more but when I do it really helps. I am looking more for reasons why others behave the way they do, in order to <b>understand</b> and try to improve me <b>relationships</b> with people. I am <b>learning</b> that <b>mindfulness</b> does help me to stay <b>calmer</b> and <b>avoid worrying</b> about things I cannot change. I feel more in <b>control</b> of my <b>emotions</b> and <b>happier</b> as a result. It has been <b>challenging</b> at <b>work</b> but I am using some of the mindfulness <b>tips</b> that I now know how to use like <b>meditation</b> and avoiding negative thoughts. It seems to be <b>helping</b> as I feel more <b>focused</b> at work. I <b>value</b> people's <b>opinions</b> more and I seem to <b>cope</b> better. I am definitely have more <b>optimism</b> which is making me feel more <b>resilient and</b> I feel I <b>know myself</b> so much more.</p>	<p>Aware Surroundings Challenging Mindfulness Patience Understand Relationships Learning Calmer Avoid worrying Control Emotions Work Tips Meditation Thoughts Help Focus Value opinions Cope Optimism Resilient Know myself</p>
3.	<p>I find myself <b>stopping</b> and <b>thinking</b> more deliberately at times before I act. I am <b>practising</b> <b>mindfulness</b> regularly and I really see the <b>benefits</b> from what I have <b>learnt</b>. I am more <b>relaxed</b>, I <b>worry less</b>, I am much more <b>present</b> than I used to be. I have found the <b>science</b> of <b>mindfulness</b> useful and the <b>learning</b> from it has encouraged me to <b>practice</b> it. I now also <b>regularly</b> attend <b>meditation</b> sessions. This really <b>helps</b>, -when I get a knock I am able to</p>	<p>Stopping Thinking Practice Mindfulness Benefits Learnt</p>

	<p><b>bounce back</b> so much quicker than before. Even the <b>breathing</b> exercises help with this.</p> <p>I am definitely more <b>enthused</b> by my work. It is still hard but I am <b>coping</b> so much better. I <b>know what is important to me</b> and these <b>values</b> are helping me to have more <b>clarity</b> around what I will and won't accept. I now have <b>tools</b> that I used to <b>help</b> me when I get <b>frazzled</b> at work. I am <b>getting on better</b> with my work colleagues as a result. I am definitely more <b>compassionate</b>.</p>	<p>Relaxed Worry less Present Science Learning Meditation Help Bounce back Breathing Enthused Know me Coping Values Clarity Tools Help Frazzled Getting on better Compassionate</p>
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### 3. Searching for sub-themes

At this point there was a long list of different codes. This stage focused on the broader level of sub-themes (ideas that capture something important about the data in relation to the question that represents a pattern in responses (Braun & Clarke, 2006) and involved sorting the different codes into different sub-themes. To help me with this step, the author used mind maps to sort codes. The author was mindful here to a) code for as many potential themes/patterns as possible b) code extracts of data inclusively as to avoid the common criticism of coding that much of the context is lost (Bryman, 2001) c) allow for coding individual extracts of data in as many different themes as they slotted into so that an extract could be un-coded, coded once or coded many times. Some codes formed sub-themes, whereas some codes were discarded.

It is acknowledged that at this point some words were selected over others and this was in part down to the professional judgement of the author and her knowledge of the literature. A chunking process was used to bind together individual codes into meaningful sub-themes (Neath, Farley & Suprenant, 2003). The sub themes act as a coherent integrated grouping of related and inter-associated codes, which help retrieval and processing of information for analysis (Tulving & Craik, 2000). The following table emerged, see **Table 7** on the next page.

**Table 7: Initial codes and sub-themes**

Codes	Sub-themes
<p>Awareness Presence Surroundings Practice Mindfulness Meditation</p> <p>Thought stoppage Avoiding worrying Less over thinking Positivity Less Negativity</p> <p>Breathing Thought stoppage Less over thinking Awareness About me Understand Know myself Know me</p>	<p>Mindfulness</p> <p>Practice</p> <p>Positive thinking</p> <p>Mindful learning /Mindfulness processes</p>
<p>Happiness Calm Settled Enthused Relaxed Caring Well-being Frazzled Sad Drained Negativity</p> <p>Coping Control Focus Tools Tips Help</p>	<p>Positive emotions</p> <p>Negative emotions</p> <p>Coping skills</p> <p>Resourcefulness</p>
<p>Less judgemental More forgiving Compassionate Optimism Value opinions Optimism</p> <p>Productive Output Get more done Achieve more Better work Higher quality work</p> <p>Patience Stronger Relationships Getting on better Meaningful discussions Re-connected with people Reduced barriers</p>	<p>Values</p> <p>Productivity</p> <p>Relationships</p>

A final review of codes was undertaken to simplify codes to avoid unnecessary repetition of the same concept and to ensure that the list of codes could be streamlined, codes were merged into each other and re-named e.g.

- Presence/surroundings/awareness/mindfulness became mindfulness
- Breathing/meditation/practice became practice
- About me/understand/know myself/know were renamed self- awareness and self-knowledge and moved to sit under the resilience sub-theme
- Positivity and less negativity became positive thinking
- Happiness/calm/enthused/frazzled/sad/drained/negativity became negative and positive emotions
- Coping/control/focus/tools/help/tips became coping skills and resourcefulness as it was overall the two codes that participants were referring to albeit using 6 different ways to describe its use.
- Compassion/optimism/more forgiving/caring/less judgemental became respect, accountability and compassion.
- Productive/output/get more done/achieve more/better work/higher quality work became productive
- Patience/stronger relationships/getting on better/re-connected with people/reduced barriers became stronger relationships, reduced barriers and re-connected with people.

The revised table of codes was as follows, see **Table 8** on the next page.

**Table 8: Revised codes and sub themes**

Codes	Sub- themes
Mindfulness Practice  Thought stoppage	Mindfulness  Practice  Positive thinking  Mindful learning  Mindfulness Processes
Positive/Negative emotions Positive thinking Well-being  Coping skills Resourcefulness  Self-awareness Self-knowledge	Positive emotions  Negative emotions  Coping skills  Resourcefulness
Respect Accountability Compassion  Productive Output Higher quality work  Stronger Relationships Re-connected with people Reduced barriers	Values  Productivity  Relationships

#### 4. Reviewing sub-themes

This stage involved the author refining identified sub-themes and removing sub-themes, which weren't really sub-themes (e.g. if there was not enough saturation in the data to support them, or the data was too diverse) or considering others which could be merged into each other (e.g. two apparently separate themes formed one theme). The author followed Patton's (1990) dual criteria for judging categories here to consider both internal homogeneity and external heterogeneity. The premise being that data within sub-themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes.

Sub-themes were also considered to ensure they adequately summarise a list of codes into a similar theme, pattern or meaning. In line with Braun and Clarke's (2006) guidelines that names for themes must be concise, punchy and immediately give the reader a sense of what the theme is about, the following decisions were made:

The following sub-themes were either merged into each other, moved, added or re-named:

- Mindfulness and practice became mindfulness practice
- Positive thinking was moved to sit under the sub-theme resilience as a code rather than a sub-theme
- Mindful learning and mindfulness processes became mindfulness skills building because both concepts are referenced under the umbrella term mindfulness-skills building as one refers to skills at the individual level and one refers to skills at the organisational or collective level.
- Positive and negative emotions were re-labelled as codes and a sub-theme emotional regulation created
- Positive and Negative emotions became emotional regulation
- Coping skills and resourcefulness became coping strategies as they referred to the same thing
- Self-regulation was added as second order themes

**Table 9: Revised sub themes**

Codes	Sub- themes
Mindfulness Practice  Thought stoppage Mindful learning Mindfulness Processes	Mindfulness Practice  Mindfulness skills building
Positive/Negative emotions Positive thinking Well-being  Coping skills Resourcefulness  Self-awareness Self-knowledge	Emotion regulation  Coping strategies  Self-regulation
Respect Accountability Compassion  Productive Output Higher quality work  Stronger Relationships Re-connected with people Reduced barriers	Values  Productivity  Relationships

## 5. Defining and naming sub-themes

This step involved capturing the essence of what each theme was about and what aspect of the data each theme captured. It was during this stage the overall narrative of all the data was created. Each sub-theme was analysed as an individual narrative and assessed to see if it fit into the overall narrative i.e. the 3 general themes the author was interested in. After a continuous revision of all the sub-themes they were finally named as opposed to working titles and a final thematic table was produced. Again the author looked to ensure sub-themes were concise, the following sub-themes were confirmed:

At this point:

- Values were renamed values-work/life as participants were referring to relationships in and outside of work.
- Productivity was renamed productivity at work as participants were referring to work only
- Relationships were re-named work/life relationships to take into account that participants were referring to relationships in and outside of work.

The author decided to add an overarching theme related to the self as it was evident throughout the data corpus that the participant's comments throughout the questionnaire referred to notions of the self.

The final table was as follows:

**Table 10: Data set codes and sub themes – (final)**

OVERARCHING THEME: THE SELF		
Codes	Sub- themes	General theme (theoretical dimension)
Mindfulness Practice  Mindful Learning Mindful processes Thought stoppage	Mindfulness practice  Mindfulness skills building	Habit forming
Negative/Positive emotions Positive thinking Well-being  Coping skills Resourcefulness  Self-awareness Self-knowledge	Emotion regulation  Coping strategies  Self-regulation	Resilience
Respect Accountability Compassion  Productive Output Higher quality work  Stronger Relationships Re-connected with people Reduced barriers	Values – work/life  Productivity at work  Work/Life Relationships	Values-based behaviours

## 6. Producing the write up

The write up was written under the three general themes to include habit forming, resilience and values-based behaviours which the author started out with and broken down in its analysis as per the final 8 sub-themes to include: mindfulness practice & mindful skills building under habit forming, emotion regulation, coping strategies & self-regulation under resilience and values, productivity and work/life relationships under values-based behaviours. The overarching theme running through the whole data set, referring to dimensions of the self will be discussed at length in Chapter 6.

### 3.7 Ethics

Psychological researchers are potentially interested in all aspects of human behaviour and experience. However, for ethics reasons, some areas of human experience and behaviour may be beyond the reach of experiment, observation or other form of psychological intervention. Ethics guidelines are necessary to clarify the conditions under which psychological research can take place. However, as stated in the *Code of Ethics and Conduct*, ‘... no Code can replace the need for psychologists to use their professional and ethical judgement’ (2009, p.4). Fundamentally, ‘thinking is not optional’ (2009, p.5).

On completion of the University’s ethical application procedure (See **Appendix 9** on page 367), informal conversations with Jersey Business and Jersey Chamber of Commerce suggested that both bodies were keen to assist and felt that it was possible to recruit participants via the placing of an advert suggested on both organisations social media platforms. Information sheets were forwarded to both organisations and to all parties who registered an interest. Following on from this, more detailed information sheets outlining the focus and scope of the research were sent out to all potential participants with the eligibility form. There was a moral obligation to anyone with an existing mental health issue to be excluded at this stage from an ethical point of view and to avoid any harm to said individual. There is evidence to suggest that a psychological intervention such as

mindfulness may be inappropriate for people with existing mental health issues such as depression and a history in adversity (Williams et al., 2014;Kuyken et al., 2015) and that such training could cause more harm. In fact, research consistently shows that 5-10% of clients get worse with psychotherapy Crawford et al., 20016; Lilienfeld, 2007). Mindfulness practices will bring into awareness experiences that are pleasant, unpleasant, or neutral such as happiness or joy, however it can also lead to Unpleasant experiences such as agitation, physical discomfort, and anger. Such experiences are usually temporary. The theoretical models that mindfulness draws from state that these pleasant, neutral *and unpleasant* experiences are part of the normal human experience. Seeing them arise and pass away is part of the learning process (Williams & Penman, 2011).

#### *Data storage and analysis*

All data storage and analysis for the entire data corpus during the duration of the study was conducted in an anonymised fashion. No names or personal identifiers were used in the reporting of the data and it was explained that it was the responsibility of the author to ensure that any data reported was non-disclosive. This was necessary to ensure that participants participation in the study could not be identified and as such would remain anonymous. All participants were assigned a unique code at the point of data collection. Information regarding the unique code and the name of the research participant was held on a password-protected file that only the researcher had access to.

It was communicated to all participants involved in the study that the data would only be used for analysis purposes and all data would be kept electronically and securely for the duration of the project, in line with Sheffield Hallam University requirements.

### *Participation rights*

Participation in the intervention and in the completion of questionnaires was entirely voluntary and optional. Participants were able to withdraw from the research study at any time though it was explained to all participants that it might not be possible to omit data collected to that point. The researcher also explained that if people found that any content within the mindfulness sessions was uncomfortable to them that again they could cease participation at any point. For all data points, participants who had an uncompleted questionnaire were sent two reminders over a 1-week period after which it was recorded as non-compliance and subsequent taken as a withdrawal. The follow up time was short as it was deemed important that all participants completed questionnaires on the same day and time (where possible) to ensure that the time between dosage and self-report was consistent.

### *Session confidentiality*

All participants were asked to sign a confidentiality form to ensure that they understood the importance of confidentiality in mindfulness sessions. Participants were reminded by the practitioner at the beginning and end of the session that ideas and beliefs shared during the session were not for public consumption. This confidentiality agreement worked both ways with both the researcher and the mindfulness teacher ensuring the confidentiality of the group at all times. All mindfulness sessions took place in Jersey hospice on the same day and time each week. The researcher has taken into account that as the environment became more familiar to the participant then it is possible that this made a contribution (albeit hypothesised to be statistically non-significant) to improvements over the weeks.

## **3.8 Summary of Chapter**

The researcher carried out a deductive analytical study taking the form of one group pre-test post-test, quasi experiment experimental design (8-week

intervention). Deductive reasoning works from the more general to the more specific. Sometimes this is informally called a "top-down" approach. This is the approach taken in that following a review of the literature, a theory was established i.e. that resilience can be improved through mindfulness training. And specific testable hypotheses developed. The author accepts that in the absence of a control group caution must be used when attempting to claim any cause and effect relationship between the variables of mindfulness and resilience. Rather the author was aiming to generalize the results to real life contexts with a similar population group by gaining high external validity, in that the findings could be transferable to the target population, in this case entrepreneurs.

## **CHAPTER 4            QUANTITATIVE RESULTS**

This chapter outlines the results from data collection in relation to the MBSR/MBCT intervention. The results have been presented in a way as to attempt to answer each hypothesis in turn. The dependant variables subjected to quantitative statistical analysis (outlined in the methods chapter) were:

Primary Dependant Variables:

- Connor Davidson Resilience questionnaire (CD-RISC) – Resilience
- 5 Facets of Mindfulness questionnaire (FFMQ) – Overall Mindfulness, Observing, Describing, Acting with awareness, Non-judging, Non-reacting

Secondary Dependant Variables:

- Profile of Mood states questionnaire (POMS2-A) – Total Mood, Depression, Anxiety, Confusion, Anger
- Perceived Stress questionnaire (PSS) – Perceived Stress
- Satisfaction with Life scale (SWLS) – Satisfaction with life

### **4.1    Descriptive statistics**

For each outcome measure scores were reported at 4 levels (week 1, week 4, week 8 and 3 month FU). Descriptive statistics for all primary and secondary outcomes are shown on Table 11a and Table 11b respectively and outline the results of normality checks carried out i.e. skew and kurtosis. Data out with normality limits (highlighted in yellow) was subjected to further scrutiny and is discussed in more detail in the methods chapter.

Table 11a: Descriptive statistics - Primary outcome measures					
Measure		Time point			
		Baseline (N=19)	Week 4 (N=18)	Week 8 (N=18)	3 month FU (N=18)
Resilience	M	68	66.06	73.5	72.94
	SD	15.02	16.18	13.89	13.21
	Skew	.303	.547	.374	.359
	SE	.524 (0.58)	.536 (1.02)	.536 (0.70)	.536 (0.67)
	Kurtosis	-.512	-.490	-1.037	-.348
	SE	1.014 (-0.50)	1.038 (-0.47)	1.038 (-1.00)	1.038 (-0.34)
Mindfulness	M	121.95	130.56	137.83	138.56
	SD	18.37	15.31	16.81	17.74
	Skew	-.443	1.026	.286	-.180
	SE	.524 (-0.85)	.536 (1.91)	.536 (0.53)	.536 (-0.34)
	Kurtosis	-.248	.801	-.141	.116
	SE	1.014 (-0.24)	1.038 (0.77)	1.038 (-0.14)	1.038 (0.11)
MF Observing	M	25	27.5	30	30.44
	SD	6.63	4.83	4.88	4.18
	Skew	-.525	-.183	-.637	-.599
	SE	.524 (-1.00)	.536 (-0.34)	.536 (-1.19)	.536 (-1.12)
	Kurtosis	-.815	-.932	-.478	-.522
	SE	1.014 (-0.80)	1.038 (-0.90)	1.038 (-0.46)	1.038 (-0.50)
MF Describing	M	28.32	28.44	29.17	29.39
	SD	6.53	6.03	6.54	7.61
	Skew	.032	.627	-0.23	-.422
	SE	.524 (0.06)	.536 (1.16)	.536 (-0.42)	.536 (-0.79)
	Kurtosis	.502	-1.150	-.267	-.177
	SE	1.014 (-0.50)	1.038 (-1.11)	1.038 (-0.26)	1.038 (-0.17)
MF Acting with Awareness	M	24.31	26.33	27.17	27.72
	SD	4.81	2.57	3.19	3.18
	Skew	-.726	.757	.456	-1.287
	SE	.524 (-1.39)	.536 (1.41)	.536 (0.85)	.536 <b>(-2.40)</b>
	Kurtosis	-1.070	1.481	1.044	2.261
	SE	1.014 (-1.06)	1.038 (1.43)	1.038 (1.00)	1.038 <b>(2.18)</b>
MF Non-Judging	M	23.79	26.22	27.78	27.89
	SD	4.34	4.91	4.95	5.12
	Skew	.128	-.265	.035	-.519
	SE	.524 (0.24)	.536 (-0.49)	.536 (0.07)	.536 (-0.97)
	Kurtosis	-.762	.318	-.471	-.234
	SE	1.014 (-0.75)	1.038 (0.31)	1.038 (-0.45)	1.038 (-0.23)
MF Non-Reacting	M	20.53	22.06	23.72	23.11
	SD	5.03	4.45	4.76	4.74
	Skew	.315	1.322	.121	-.276
	SE	.524 (0.60)	.536 <b>(2.47)</b>	.536 (0.23)	.536 (-0.51)
	Kurtosis	.485	1.344	-.286	-.655
	SE	1.014 (0.48)	1.038 (1.29)	1.038 (-0.28)	1.038 (-0.63)

Table 11b: Descriptive statistics - Secondary outcome measures					
Measure		Time point			
		Baseline (N=19)	Week 4 (N=18)	Week 8 (N=18)	3 month FU (N=18)
Perceived stress	M	22.11	20.44	20.94	21.17
	SD	3.49	2.31	2.71	2.81
	Skew	.068	-.066	.205	.915
	SE	.524 (1.30)	.536 (-0.12)	.536 (0.38)	.536 (1.71)
	Kurtosis	-.572	2.41	-1.148	.506
	SE	1.014 (0.56)	1.038 <b>(2.32)</b>	1.038 (-1.11)	1.038 (0.49)
Satisfaction with Life	M	22.5	23.83	25.88*	26.22
	SD	7.64	7.83	7.43	6.34
	Skew	-.136	-.374	-.734	-.730
	SE	.536 (-0.25)	.536 (-0.70)	.550 (-1.33)	.536 (-1.36)
	Kurtosis	-.726	-1.169	-.502	.298
	SE	1.038 (-0.70)	1.038 (-1.13)	1.063 (-0.47)	1.038 (0.29)
Total Mood Disturbance	M	59.84	55.5	50.24*	49.27
	Mdn	57	54.5	49	47
	SD	15.06	13.81	10.35	8.65
	Skew	.417	1.68	.985	1.016
	SE	.524 (0.80)	.536 <b>(3.13)</b>	.550 (1.79)	.536 (1.90)
	Kurtosis	-1.069	4.370	1.015	1.425
	SE	1.014 (-1.05)	1.038 <b>(4.21)</b>	1.063 (0.95)	1.038 (1.37)
Anger-Hostility	M	53.58	50.06	47.65*	47
	Mdn	52	48	47	47
	SD	9.26	9.3	8.21	4.49
	Skew	.813	1.55	2.526	-.154
	SE	.524 (1.55)	.536 <b>(2.89)</b>	.550 <b>(4.59)</b>	.536 (-0.29)
	Kurtosis	1.252	3.11	7.856	-1.168
	SE	1.014 (1.23)	1.038 <b>(3.00)</b>	1.063 <b>(7.39)</b>	1.038 (-1.13)
Confusion-Bewilderment	M	58.42	53.39	50.88*	51.06
	Mdn	53	52.5	46	49.5
	SD	13.13	9.33	8.82	7.83
	Skew	.831	.040	1.265	.980
	SE	.524 (1.59)	.536 (0.07)	.550 <b>(2.30)</b>	.536 (1.83)
	Kurtosis	-.085	-1.538	1.089	.064
	SE	1.014 (-0.08)	.536 <b>(-2.87)</b>	1.063 (1.02)	1.038 (0.06)
Depression-Dejection	Me	53.9	53.11	49.06*	48.5
	Mdn	53	57.5	52.5	50.5
	SD	14.49	9.09	7.4	5.15
	Skew	-.354	.490	1.724	1.003
	SE	.524 (-0.68)	.536 (0.91)	.550 <b>(3.13)</b>	.536 (1.87)
	Kurtosis	1.302	-.081	3.811	1.351
	SE	1.014 (1.28)	1.038 (-0.08)	1.063 <b>(3.59)</b>	1.038 (1.30)
Tension-Anxiety	M	57.42	52.44	47.58*	48.39
	Mdn	56	51	49	47.5
	SD	9.68	9.15	6.59	6.46
	Skew	.409	.979	.593	1.613
	SE	.524 (0.78)	.536 (1.83)	.550 (1.08)	.536 <b>(3.01)</b>
	Kurtosis	-.982	.933	-.211	4.252
	SE	1.014 (-0.97)	1.038 (0.90)	1.063 (-0.20)	1.038 <b>(4.10)</b>

**4.2 Hypothesis 1:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **resilience** midway through the course, immediately after course completion, and at 3-month follow up.

The main overall effect *resilience* scores (See **Table 11a** on page 139) indicated that there was a significant difference in scores over time ( $F(2.58, 43.9) = 4.56$ ,  $p = .007$ ,  $\eta^2 = 0.267$ ,  $a=.851$ ) with resilience scores increasing from week 1 ( $M=68$ ) and remaining elevated at the 3 month FU point ( $M=72.94$ ). There was also a statistically significant linear contrast for the overall resilience scores over time,  $F(1, 17) = 9.52$ ,  $p = .007$ ,  $\eta^2 = 0.359$ ,  $a=.828$  (See Table 12). **This result suggests that resilience improved in a linear fashion throughout the course of the study and remained elevated at the 3 month follow up time point ( $M>4.94$ ). Estimates of effect size for both the main effect and the linear contrast indicates a large effect size.**

Table. 12 Resilience (CD-RISC)

Within Participants (Repeated Measures ANOVA Resilience - CD-RISC)					
Main Effect and Linear Contrast					
	DF	F	P	$\eta^2$	a
CD-RISC Overall score	2.58	4.56	0.007	0.267	.851
Error	43.9				
Linear Contrast	1	9.52	0.007	0.359	.828
Error	17				

Analysis of the graph (Graph 1), descriptive statistics (See **Table 11a** on page 139 for N, M, SD) and post hoc testing (See Table 13) using the Bonferoni corrected alpha criteria of .012 was carried out. Contrasts revealed a significant improvement in resilience with a large effect size between Week 4 and Week 8,  $F(1, 17) = 9.23, p = .01, \eta^2 = 0.415, a=.860$ . While the contrasts between Baseline and Week 4,  $F(1, 17) = .242, p = .063, \eta^2 = 0.14$ , Baseline and Week 8,  $F(1, 17) = 4.659, p=.045, \eta^2 = 0.215$ , and Baseline and 3 month FU,  $F(1, 17) = 4.903, p = .041, \eta^2 = 0.224$ , were not statistically significant in terms of improvement in scores.

**This indicates that while there was a general trend for improvement in resilience over the course of the study with the exception of Week 4 where resilience scores declined slightly ( $M < 1.94$ ), the period between Week 4 and 8 held the only statistically reliable improvement ( $M > 7.44$ ). This does therefore warrant sufficient caution in how one interprets the results and only partially supports the hypothesis.**

Graph. 1 Resilience (CD-RISC) Main Effect.

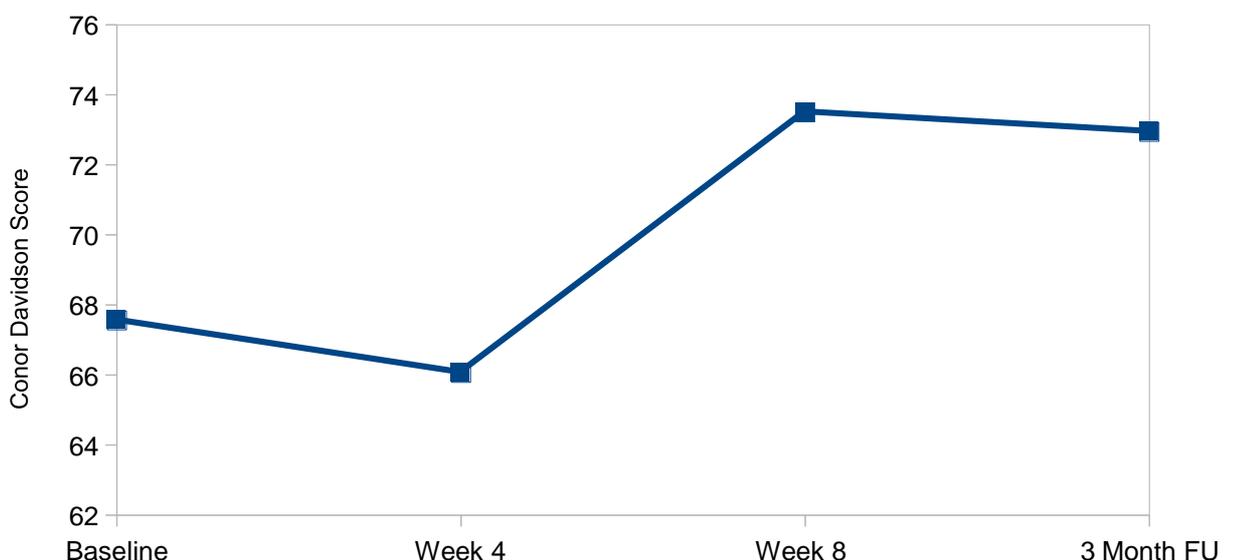


Table. 13 Custom Contrast Resilience (CD-RISC)

Within Participants Table Custom contrast					
	DF	F	P	$\eta p^2$	A
Baseline- Week 4 Error	1 17	.242	.063	0.14	
Baseline- Week 8 Error	1 17	4.659	.045	0.215	
Baseline- FU Error	1 17	4.903	.041	0.224	
Week 4- Week 8 Error	1 17	9.23	.01	0.415	.860

**4.3 Hypothesis 2:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **mindfulness** midway through the course, immediately after course completion, and at 3-month follow up.

The main overall effect *mindfulness* scores (See Table 11a) indicated that there was a significant difference in scores over time ( $F(2.05, 34.81) = 17.02, p < .001, \eta p^2 = 0.5, a=.994$ ) with mindfulness scores increasing from week 1 ( $M=121.95$ ) to 3 month FU ( $M=138.56$ ). There was also a statistically significant linear contrast for the overall mindfulness scores over time,  $F(1, 17) = 24.53, p < .001, \eta p^2 = 0.591, a=.997$  (See Table 14). **This suggests that mindfulness improved in a linear fashion throughout the course of the study and remained elevated at the 3 month follow up time point ( $M>16.61$ ). Estimates of effect size for both the main effect and contrast indicate a large effect size, which suggests there was a large amount of improvement between mindfulness scores at the start of the study and mindfulness scores at the end of the study.**

Table. 14 Mindfulness (FFMQ)

Within Participants Repeated Measures ANOVA Mindfulness (FFMQ)					
Main Effect and Linear Contrast					
	DF	F	P	$\eta^2$	a
FFMQ Overall Score Error	2.05	17.02	<.001	0.5	.994
	34.81				
Linear Contrast Error	1	24.53	<.001	0.591	.997
	17				

Analysis of the graph (Graph 2), the descriptive statistics (See Table 11a for N, M and SD) and post hoc testing (See Table 15) using the Bonferoni corrected alpha criteria of .012 were carried out. Contrasts revealed significant improvement in mindfulness scores between Baseline and Week 4 with a large effect size,  $F(1, 17) = 9.88, p = .006, \eta^2 = 0.368, a = .842$ . The contrast between Week 4 and Week 8 also revealed a significant improvement with a large effect size,  $F(1, 17) = 14.32, p = .001, \eta^2 = 0.457, a = .901$ . Whilst Baseline to Week 8 had the strongest improvement in mindfulness with a large effect size,  $F(1, 17) = 23.89, p = .001, \eta^2 = 0.584, a = .996$ , Baseline to 3 month FU was also statistically significant,  $F(1, 17) = 21.94, p = .001, \eta^2 = 0.563, a = .993$ . **This indicates that there were statistically reliable improvements in mindfulness between all-time points with large effect sizes evident throughout thus fully supporting the hypothesis.**

Graph. 2 Mindfulness (FFMQ) Main Effect

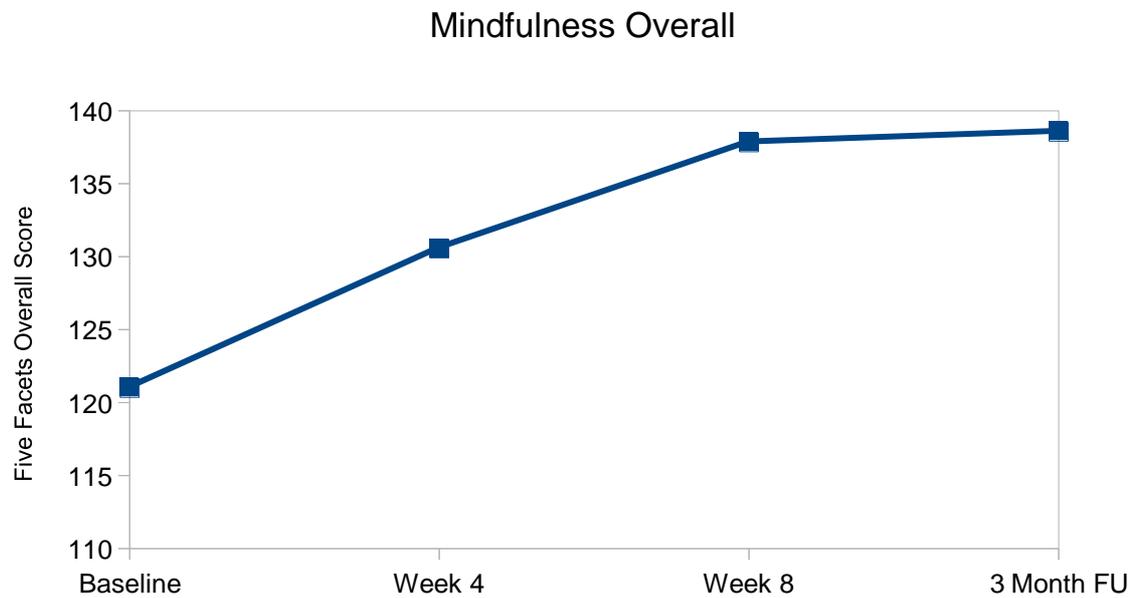


Table. 15 Custom Contrast Mindfulness (FFMQ)

Within Participants Table Custom contrast

	DF	F	P	$\eta^2$	a
Baseline- Week 4	1	9.878	.006	0.368	.842
Error	17				
Baseline- Week 8	1	23.89	.001	0.584	.996
Error	17				
Baseline- FU	1	21.94	.001	0.563	.993
Error	17				
Week 4- Week 8	1	14.32	.001	0.457	.901
Error	17				

**4.3.1 Hypothesis 2a:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of the **mindfulness facets** (observing, describing, acting with awareness, non-judging, non-reacting) midway through the course, immediately after course completion, and at 3-month follow up

*Observing subscale:* The main overall effect *observing* scores (See Table 11a) indicated that there was a significant difference in scores over time ( $F(2.31, 39.23) = 12.04, p < .001, \eta^2 = 0.415, a=.999$ ) with observing scores increasing from week 1 ( $M=25$ ) to 3 month FU ( $M=27.5$ ). There was also a statistically significant linear contrast for the observing scores over time,  $F(1, 17) = 22.89, p < .001, \eta^2 = 0.574, a=.994$  (See Table 16). This suggests that the observing aspect of mindfulness improved in a linear fashion throughout the course of the study and remained elevated at the 3 month FU time point. **Estimates of effect size for both the main effect and contrast indicates a large effect size, which suggests there is a large amount of improvement between observing scores at the start of the study and observation scores at the end of the study ( $M>5.44$ ).**

Table. 16 Observing (FFMQ)

Within Participants Table (Repeated measures ANOVA Observing - FFMQ) Main Effect and Linear Contrast					
	DF	F	P	$\eta^2$	a
Observing sub scale	2.31	12.04	<.001	0.415	.999
Error	39.23				
Linear Contrast	1	22.89	<.001	0.574	.994
Error	17				

Analysis of the graph (Graph 3), the descriptive statistics (See Table 11a for N, M, SD) and post hoc testing (See Table 17) using the Bonferrni corrected alpha criteria of .016 was carried out. Contrasts revealed no significant improvement between Baseline and Week 4,  $F(1, 17) = 4.467, p = .050, \eta^2 = 0.208$ . The contrast between Baseline and Week 8 revealed a significant contrast with a large effect size,  $F(1, 17) = 15.892, p = .001, \eta^2 = 0.483, a=.513$ . Whilst the Baseline to 3 month FU contrast was also statistically significant,  $F(1, 17) = 20.302, p = .001, \eta^2 = 0.544, a=.989$  with a large effect size. **This indicates that there were statistically reliable improvements in the observing facet of mindfulness between both Baseline and Week 8 and Baseline and 3 month FU scores thus partially supporting the hypothesis.**

Graph. 3 Observing (FFMQ) main effect.

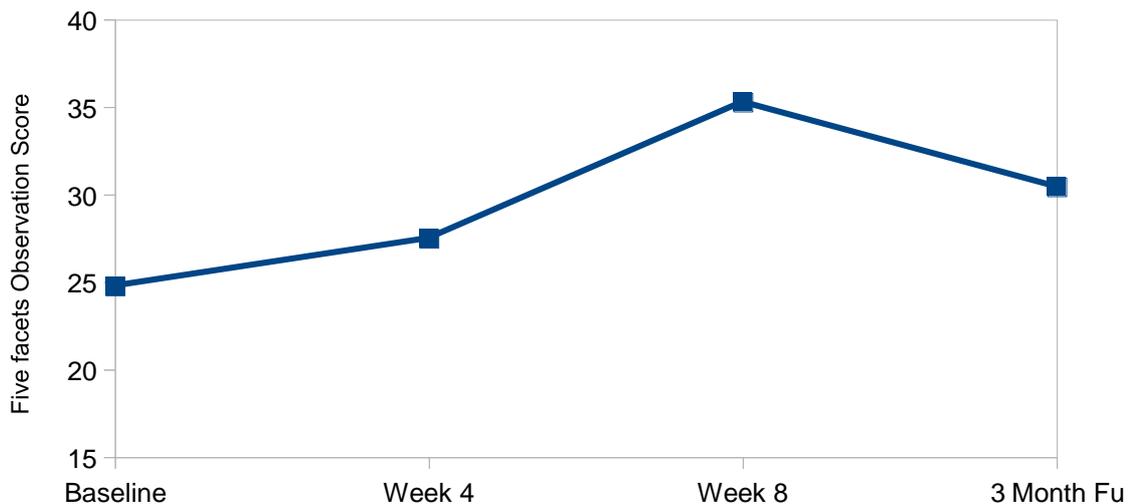


Table. 17 Custom Contrast Observing (FFMQ)

Within Participants Table Custom contrast					
	DF	F	P	$\eta^2$	a
Baseline- Week 4 Error	1 17	4.467	.050	0.208	
Baseline- Week 8 Error	1 17	15.892	.001	0.483	.513
Baseline- FU Error	1 17	20.30	.001	0.544	.989

*Describing sub-scale:* The main overall effect *describing* scores (See Table 11a) indicated that scores did not alter over time at a statistically significant level,  $F(3, 51) = 1.15$ ,  $p = .337$ ,  $\eta^2 = 0.64$ ,  $a = .292$  (see Table 18). There was also not a statistically significant linear contrast for the *describing* scores over time,  $F(3, 51) = 2.72$ ,  $p = .118$ ,  $\eta^2 = .1384$ . **This suggests that the describing facet of mindfulness did not alter noticeably throughout the course of the study.**

Table. 18 Describing (FFMQ)

Within Participants Table (Repeated measures ANOVA Describing-(FFMQ) Main Effect and Linear Contrast					
	DF	F	P	$\eta^2$	a
Describing Subscale	3	1.15	.337	0.64	
Error	51				
Linear Contrast					
Error					

Based on the shape of Graph 4 and the descriptive statistics (See Table 11a for N, M and SD) it was suspected that there was no notable change in describing scores at any time points. Post hoc testing was then carried out (See Table 19). All contrasts demonstrated no scores that reached statistical significance at any of the key time points. **This indicates that there were no reliable improvements in the describing facet of mindfulness scores at any time points thus rejecting the hypothesis.**

Graph. 4 Describing (FFMQ) main effect.

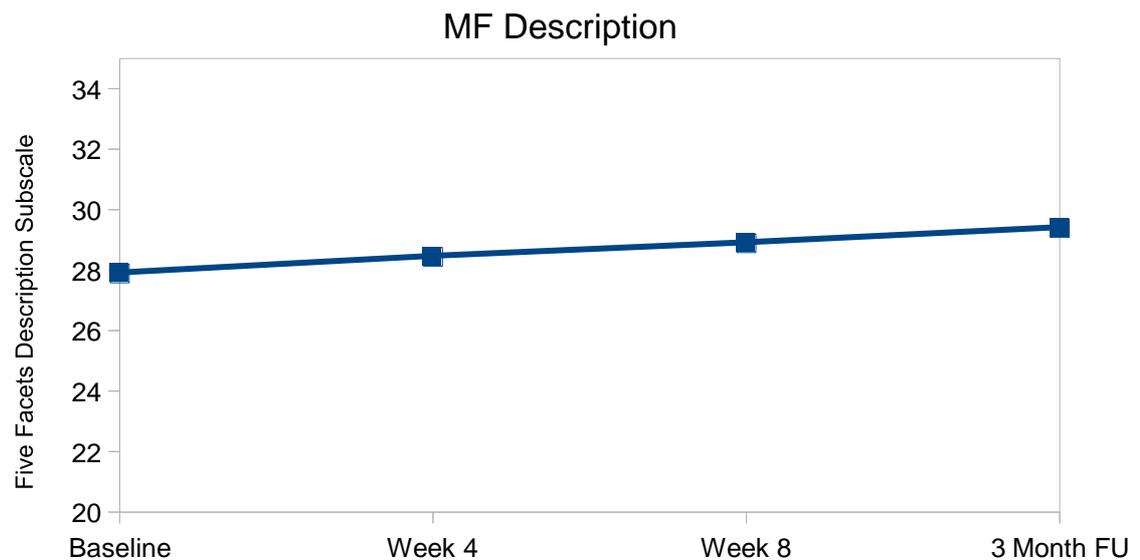


Table. 19 Custom Contrast Describing (FFMQ)

Within Participants Table Custom contrast					
	DF	F	P	$\eta^2$	A
Baseline- Week 4	1	.507	.486	0.029	
Error	17				
Baseline- Week 8	1	2.878	.108	0.145	
Error	17				
Baseline- FU	1	2.109	.165	0.110	
Error	17				

*Acting with awareness sub-scale:* The main overall effect of the *acting with awareness* scores (See Table 11a) indicated that there was a significant improvement in scores over time,  $F(2.19, 37.27) = 5.2$ ,  $p = .009$ ,  $\eta^2 = 0.234$ ,  $a = .822$ . There was also a statistically significant linear contrast for the *acting with awareness* scores over time,  $F(1, 17) = 8.62$ ,  $p = .009$ ,  $\eta^2 = 0.336$ ,  $a = .790$  (See Table 20). This suggests that the *acting with awareness* aspect mindfulness improved in a linear fashion throughout the course of the study and remained elevated 3 month follow up time point **Estimates of effect size for the main effect indicates a large effect while the linear contrast also indicates a large effect size, which suggests there is a large improvement between the start of the study and end of the study in acting with awareness scores ( $M > 3.41$ ).**

Table. 20 Acting with awareness (FFMQ)

Within Participants Table (Repeated measures ANOVA Acting with awareness-(FFMQ) Main Effect and Linear Contrast					
	DF	F	P	$\eta^2$	$\alpha$
Acting with awareness Subscale	2.19	5.2	.009	0.234	.822
Error	37.27				
Linear Contrast	1	8.62	.009	0.336	.790
Error	17				

Analysis of the graph (Graph 5), the descriptive statistics (See Table 11a for N, M and SD) and post hoc testing (See Table 21) using the Bonferni corrected alpha criteria of.016 were carried out. Contrasts revealed no significant improvement between Baseline and Week 4,  $F(1, 17) = 3.65$ ,  $p = .073$ ,  $\eta^2 = 0.177$ . The contrast between Baseline and Week 8 was approaching significance,  $F(1, 17) = 6.328$ ,  $p = .022$ ,  $\eta^2 = 0.271$ . While the Baseline and 3 month FU contrast revealed a significant improvement in mindfulness,  $F(1, 17) = 7.834$ ,  $p = .012$ ,  $\eta^2 = 0.315$ ,  $\alpha = .751$ , with a large effect size. **This indicates that there were statistically reliable improvements for the Acting with awareness facet between Baseline and 3 month FU only thus partially supporting the hypothesis.**

Graph. 5 Acting with awareness (FFMQ) main effect

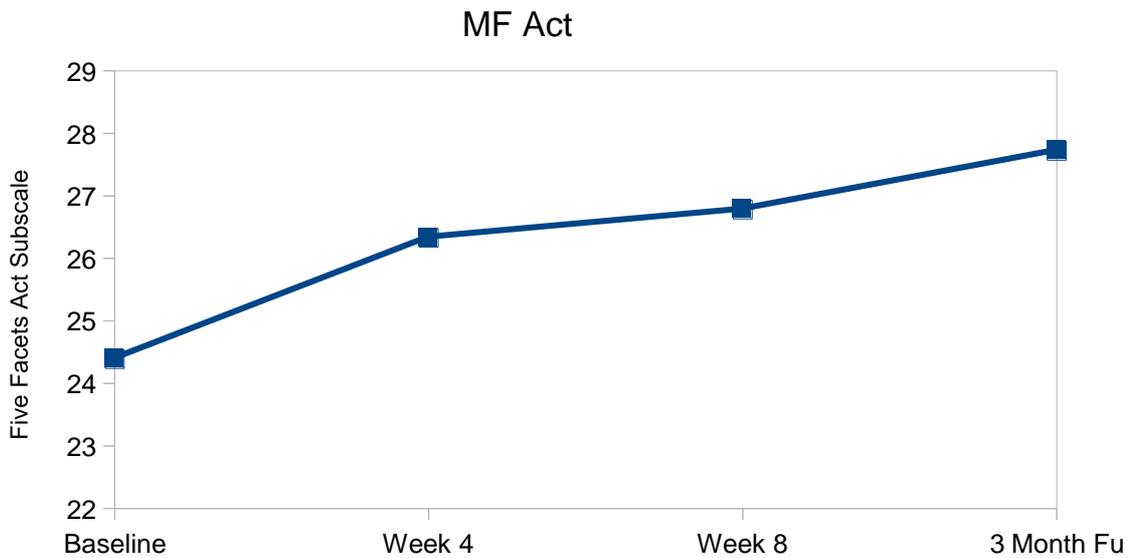


Table. 21 Custom Contrast Acting with awareness (FFMQ)

Within Participants Table Custom contrast

	DF	F	P	$\eta^2$	a
Baseline- Week 4	1	3.65	.073	0.177	
Error	17				
Baseline- Week 8	1	6.328	.022	0.271	
Error	17				
Baseline- FU	1	7.834	.012	0.315	.751
Error	17				

*Non-Judging sub-scale:* The main effect of the overall *non-judging* scores (See Table 11a) indicated that there was a significant improvement in scores over time,  $F(2.21, 37.63) = 8.77, p = .001, \eta^2 = 0.34, a=.970$ . There was also a statistically significant linear contrast for the non-judgement subscale over time,  $F(1, 17) = 12.84, p = .002, \eta^2 = 0.43, a=.921$  (See Table 22). This suggests that

the non-judging aspect of mindfulness improved in a linear fashion throughout the course of the study and remained elevated at 3 month FU time point. **Estimates of effect size for both the main effect and linear contrast indicates a large effect size, which suggests there is a large improvement between the beginning and the end of the study in Non-Judging scores ( $M>4.1$ ).**

Table.22 Non-Judging (FFMQ) main effect.

Within Participants Table (Repeated measures ANOVA Non-Judging– FFMQ) Main Effect and Linear Contrast					
	DF	F	P	$\eta^2$	a
Non-Judging Subscale	2.21	8.77	.001	0.34	.970
Error	37.63				
Linear Contrast	1	12.84	.002	0.43	.921
Error	17				

Analysis of the graph (Graph 6), the descriptive statistics (See Table 11a for N, M and SD) and post hoc testing (See Table 23) using the Bonferoni corrected alpha criteria of .016 were carried out. Contrasts revealed that the contrast between Baseline and Week 4 was approaching statistical significance,  $F(1, 17) = 5.825$ ,  $p = .027$  ( $\eta^2 = 0.255$ ). The contrast between Baseline and Week 8 was significant with a large effect size,  $F(1, 17) = 14.293$ ,  $p = .001$ ,  $\eta^2 = 0.457$ ,  $a = .945$ . While the Baseline and 3 month FU contrast was also statistically significant with a large effect size,  $F(1, 17) = 11.439$ ,  $p = .004$ ,  $\eta^2 = 0.402$ ,  $a = .890$ . **This indicates that there were statistically reliable improvements in the non-judging facet of mindfulness between Baseline and Week 8 and Baseline and 3 month FU thus partially supporting the hypothesis.**

Graph. 6 Non-Judging (FFMQ) main effect

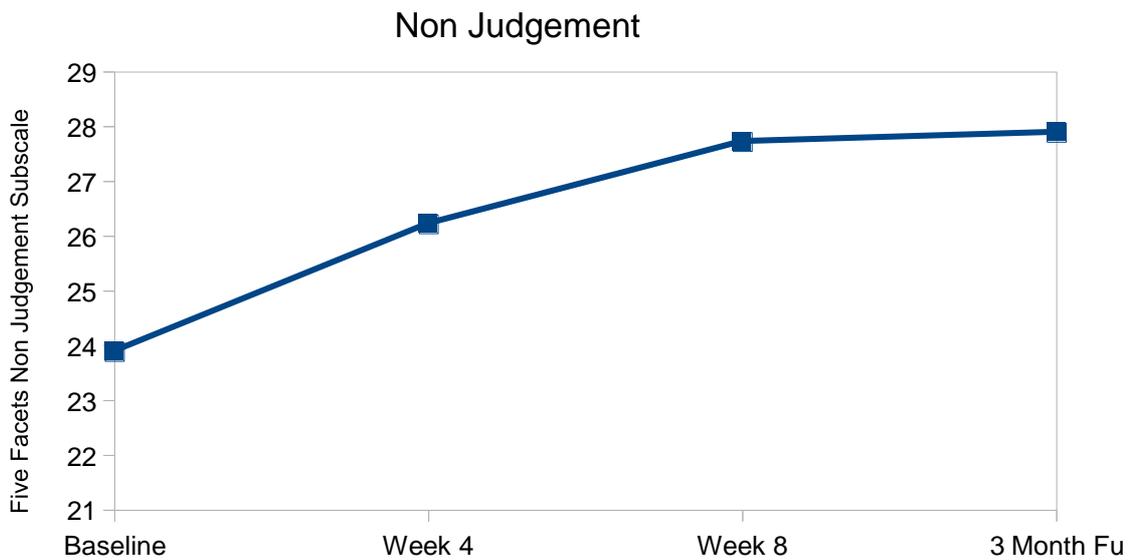


Table. 23 Custom Contrast Non-Judging (FFMQ)

Within Participants Table Custom contrast

	DF	F	P	$\eta^2$	a
Baseline-Week 4	1	5.825	.027	0.255	
Error	17				
Baseline-Week 8	1	14.293	.001	0.457	.945
Error	17				
Baseline-FU	1	11.439	.004	0.402	.890
Error	17				

*Non-Reacting sub-scale:* The main overall effect of the *non-reacting* scores indicated that scores improved with time (See Table 11a) at a statistically significant level,  $F(2.33, 39.58) = 6.79, p = .002, \eta^2 = 0.285, a=.927$ . There was also a statistically significant linear contrast for the *Non-Reacting* scores over time,  $F(1, 17) = 8.62, p = .009, \eta^2 = 0.337, a=.790$  (See Table 24). This suggests that the *non-reacting* aspect of mindfulness improved in a linear fashion

throughout the course of the study and remained elevated at the 3 month follow up time point. **Estimates of effect size for both the main effect indicate a large effect size and linear contrast indicates a large effect size, which suggests there is a large improvement between the beginning and the end of the study in non-reacting scores ( $M > 2.58$ ).**

Table. 24 Non-Reacting (FFMQ) main effect.

Within Participants Table (Repeated measures ANOVA Non-Reacting Subscale-FFMQ) Main Effect and Linear Contrast					
	DF	F	P	$\eta^2$	a
Non-Reacting Subscale	2.33	6.79	.002	0.25	.927
Error	39.58				
Linear Contrast	1	8.62	.009	0.337	.790
Error	17				

Analysis of the graph (Graph 7), the descriptive statistics (See Table 11a for N, M and SD) and post hoc testing (See Table 25) using the Bonferoni corrected alpha criteria = .016 were carried out. Contrasts demonstrated a non-significant contrast between Baseline and Week 4,  $F(1, 17) = 5.322$ ,  $p = .034$ ,  $\eta^2 = 0.238$ . The contrast between Baseline and Week 8 was significant with a large effect size showing the strongest effect of all time points,  $F(1, 17) = 11.688$ ,  $p = .003$  ( $\eta^2 = 0.407$ ,  $a = .896$ ). While the Baseline and 3 month FU contrast was also statistically significant,  $F(1, 17) = 0.2$ ,  $p = .016$ ,  $\eta^2 = 0.299$ ,  $a = .717$ , with a large effect size. **This indicates that there were statistically reliable improvements in the non-reaction facet of mindfulness between both Baseline and Week 8 and Baseline and 3 month FU thus partially supporting the hypothesis.**

Graph. 7 Non-Reacting Main (FFMQ) effect

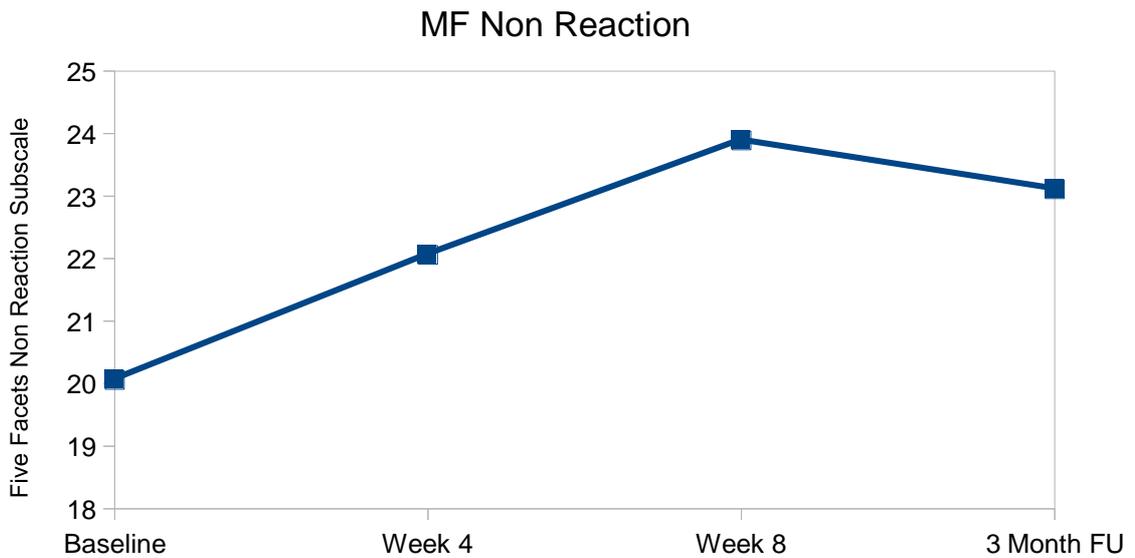


Table. 25 Custom Contrast Non-reacting (FFMQ)

Within Participants Table Custom contrast

	DF	F	P	$\eta^2$	A
Baseline- Week 4	1	5.322	.034	0.238	
Error	17				
Baseline- Week 8	1	11.688	.003	0.407	.896
Error	17				
Baseline- FU	1	7.234	.016	0.299	.717
Error	17				

Overall participants who completed the 8-week MBSR/MBCT course did not report significantly higher levels on all sub-scales of mindfulness midway through the course, immediately after course completion, and at 3-month follow up and results suggested that most improvement happened at the end of the course and at 3 month follow up. Thus, the overall hypothesis was partially supported.

**4.3.2 Hypothesis 2b:** Participants who complete daily mindfulness practice course will report significantly higher levels of **mindfulness** midway through the course, immediately after course completion, and at 3-month follow up.

In order to test whether or not mindfulness improved with daily practice a Pearsons' correlation was performed between self-reported number of minutes practised and their mindfulness score at the three-month follow up point. There was not a statistically reliable correlation found between reported minutes practised and end mindfulness score,  $r = (17), -.179, p = .491$ . **This suggests that practice didn't improve mindfulness scores thus the hypothesis was not supported.**

**4.4 Hypothesis 3:** Participants who complete an 8-week MBSR/MBCT course will report significantly higher levels of **satisfaction with life** midway through the course, immediately after course completion, and at 3-month follow up.

*Satisfaction with Life Data:* The main overall effect of the satisfaction with life scores (See Table 11b on page 140) indicated that there was a significant improvement in scores over time,  $F(3, 45) = 8.44, p < .001, \eta^2 = 0.360, a=.989$ . There was also a statistically significant linear contrast for satisfaction with life scores over time,  $F(1, 15) = 19.99, p < .001, \eta^2 = 0.571, a=.986$  (See Table 23). **This suggests that satisfaction with life improved in a linear fashion throughout the course of the study and remained high at the 3 month follow up time point ( $M>3.72$ ). Estimates of effect size for both the main effect and contrast indicates a large effect size.**

Table. 26 Satisfaction with Life (SWLS)

Within Participants Table (Repeated Measures ANOVA Satisfaction with Life - SWLS) Main Effect and Linear Contrast					
	DF	F	P	$\eta p^2$	A
Satisfaction with Life	3	8.44	<.001	0.360	.989
Error	45				
Linear Contrast	1	19.99	<.001	0.571	.986
Error	15				

Analysis of the graph (Graph 8), the descriptive statistics (See Table 11b for N, M and SD) and post hoc testing (See Table 27) using the Bonferoni corrected alpha criteria of .016 were carried out. Contrasts showed that the contrast between Baseline and Week 4, was approaching statistical significance,  $F(1, 15) = 5.217$ ,  $p = .037$ ,  $\eta p^2 = 0.258$ . The contrast between Baseline and Week 8 was significant with a large effect size,  $F(1, 15) = 10.763$ ,  $p = .005$ ,  $\eta p^2 = 0.418$ ,  $a = .868$ . While the Baseline and 3 month FU contrast was also statistically significant with a large effect size,  $F(1, 15) = 17.271$ ,  $p = .001$ ,  $\eta p^2 = 0.535$ ,  $a = .972$ . **This indicates that there were statistically reliable improvements in satisfaction with life between both Baseline and Week 8 and Week 8 and 3 month FU thus partially supporting the hypothesis.**

Graph. 8 Satisfaction with Life (SWLS) Main effect



Table. 27 Custom Contrast Satisfaction with Life (SWLS)

Within Participants Table Custom contrast

	DF	F	P	$\eta^2$	A
Baseline- Week 4	1	5.217	.037	0.258	
Error	15				
Baseline- Week 8	1	10.763	.005	0.418	.868
Error	15				
Baseline- FU	1	17.271	.001	0.535	.972
Error	15				

**4.5 Hypothesis 4:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **perceived stress** midway through the course, immediately after course completion, and at 3-month follow up.

*Perceived Stress Data:* The main overall effect of the perceived stress scores (See Table 11b) indicated that scores did not noticeably change over time at a statistically significant level,  $F(3, 51) = 1.39$ ,  $p = .256$ ,  $\eta^2 = 0.076$ . **This suggests that perceived stress did not alter noticeably through the course of the study thus the hypothesis was not supported.**

Table. 28 Perceived stress scale (PSS)

Within Participants Table (Repeated Measures ANOVA Perceived Stress -PSS) Main Effect and Linear contrast					
	DF	F	P	$\eta^2$	A
Perceived Stress	3	1.39	.256	0.076	
Error	51				
Linear Contrast	1	0.59	.453	.034	
Error	17				

Analysis of the graph (Graph 9), the descriptive statistics (See Table 11b for N,M and SD) and post hoc testing (See Table 29) using the Bonferoni corrected alpha criteria of .016 were carried out. Contrasts revealed that between Baseline and Week 4 improvements in scores were approaching statistical significance,  $F(1, 17) = 3.935$ ,  $p = .064$ ,  $\eta^2 = 0.19$ . The contrast between Baseline and Week 8 was not significant,  $F(1, 17) = 1.637$ ,  $p = .218$ ,  $\eta^2 = 0.08$ . While the Baseline and 3 month FU contrast was also not significant,  $F(1, 17) = 0.2$ ,  $p = .331$ ,  $\eta^2 = 0.056$ . **This indicates that there were no statistically reliable changes in perceived stress throughout the duration of the study thus not supporting the hypothesis.**

Graph. 9 Perceived Stress (PSS) Main effect

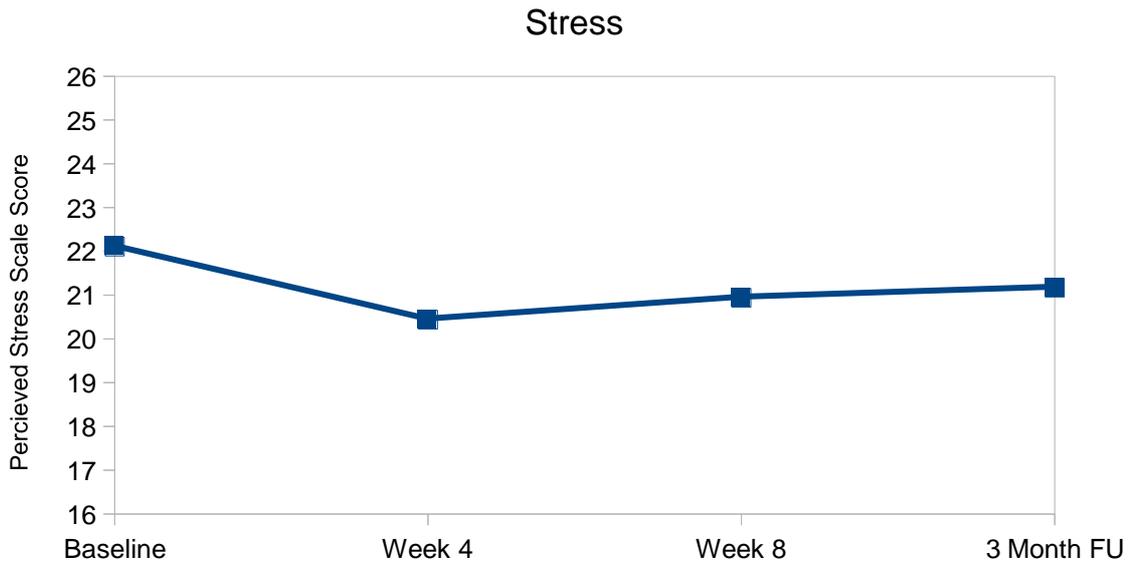


Table. 29 Custom Contrast Perceived stress scale (PSS)

Within Participants Table Custom contrast

	DF	F	P	$\eta^2$	A
Baseline- Week 4	1	3.395	.064	0.19	
Error	17				
Baseline- Week 8	1	1.637	.218	0.08	
Error	17				
Baseline- FU	1	1.000	.331	0.056	
Error	17				

**4.6 Hypothesis 5:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **mood disturbance** midway through the course, immediately after course completion, and at 3-month follow up.

In order to test whether or not psychological wellbeing improved after the mindfulness intervention a series of statistical tests were performed on the

following scale and sub scales of the POMS-2A Mood disturbance questionnaire: Anger- Hostility, Confusion-Bewilderment, Depression-Dejection, & Tension-Anxiety.

*POMS-2A Mood Disturbance Data:* The main overall effect of the POMS2-A mood disturbance scores indicated that there was a significant reduction in mood disturbance scores over time (See Table 11b) with a large effect size,  $X^2(3) = 31.411$ ,  $p < .001$ ,  $.616$  (see Table 30).

Table. 30 Mood Disturbance (POMS-2A)

Within Participants Table (Friedman's Test POMS-2A Mood Disturbance) Main Effect				
	DF	Chi Square	P	Kendalls W
	3	31.411	.<001	.616
	17			

Based on the shape of Graph 10, the descriptive statistics (Table 11b for N, Mdn and SD) and post hoc testing using the Bonferoni corrected alpha criteria of .016, there was a statistically significant difference in scores in perceived mood disturbance over the duration of the intervention. Although there was not a significant decrease in mood disturbance from Baseline (median=57 ) to Week 4 (median = 54.5),  $Z = -1.617$ ,  $p = .093$ , there was a significant decrease from baseline (median=57) to Week 8 (median = 49) with a large effect size,  $Z = -3.624$ ,  $p < .001$ ,  $r = -.51$  and Baseline (median=57) to 3 month FU (median = 47) with a large effect size,  $Z = -3.378$ ,  $p < .001$ ,  $r = -.47$  (see Table 31). **This indicates that there were statistically reliable improvements in mood disturbance but not at the mid-way point thus partially supporting the hypothesis.**

Graph. 10 Mood Disturbance (POMS-2A) main effect

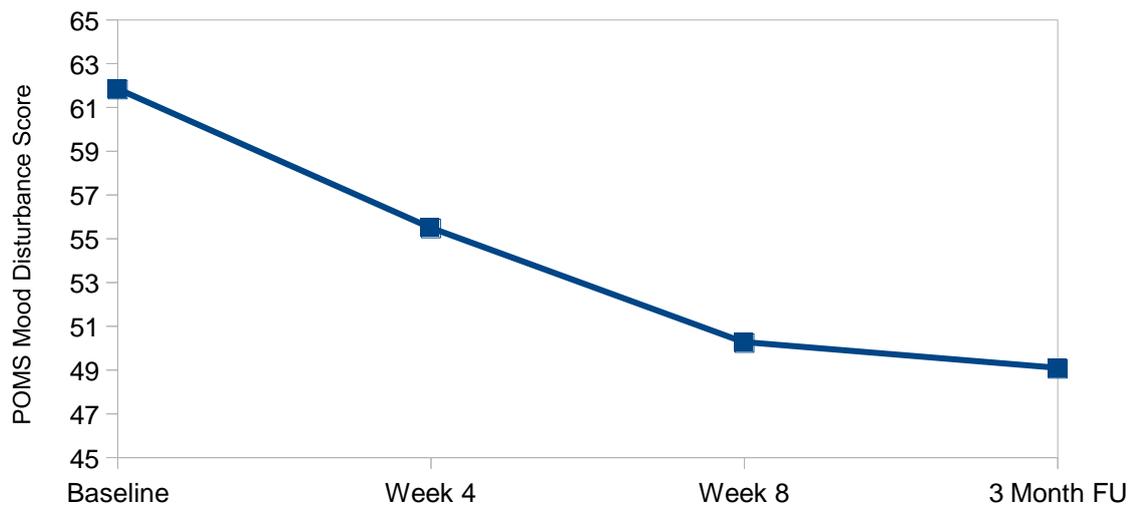


Table. 31 Wilcoxon signed rank tests – Mood disturbance (POMS-2A)

	Z	P	r
Baseline-Week 4	-1.617	.093	
Baseline-Week 8	-3.624	.001	-.51
Baseline-FU	-3.378	.001	-.47

**4.6.1 Hypothesis 5a:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **anger hostility** midway through the course, immediately after course completion, and at 3-month follow up.

*POMS-2A Anger Hostility Data.* The main overall effect of the POMS-2A *anger hostility* scores (See Table 11b) indicated that there was a significant reduction in anger hostility scores over time,  $X^2(3)=11.833$ ,  $p=.008$ ,  $.232$  (see Table 32). Estimates of effect size for the main effect indicates a small effect size, **which suggests there is a reliable but small improvement between the beginning and the end of the study in anger hostility scores.**

Table.32 Anger Hostility (POMS-2A)

Within Participants Table (Friedman's Test POMS Anger Hostility)				
Main Effect				
	DF	Chi Square	P	Kendalls W
	3	11.833	<.008	.232
	17			

Based on the shape of Graph 11, the descriptive statistics (See Table 11b for N, Mdn and SD) and post hoc testing using the Bonferoni corrected alpha criteria of .016, there was no significant difference in scores over the duration of the intervention. There was no significant decrease in mood disturbance from Baseline (median=52) to Week 4 (median = 48),  $Z=-1.763$ ,  $p.078$ , however there was a significant reduction in scores from Baseline (median=52) to Week 8 (median = 47) with a medium effect size,  $Z=-2.490$ ,  $p.013$ ,  $r=-.35$  and Baseline (median=52) to 3 month FU (median = 47) with a medium effect size,  $Z=-2.813$ ,  $p.005$ ,  $r=-.40$ . **This indicates that there was medium improvement in anger hostility scores but not at the mid-way point thus partially supporting the hypothesis.**

Graph. 11 Anger Hostility (POMS-2A) main effect

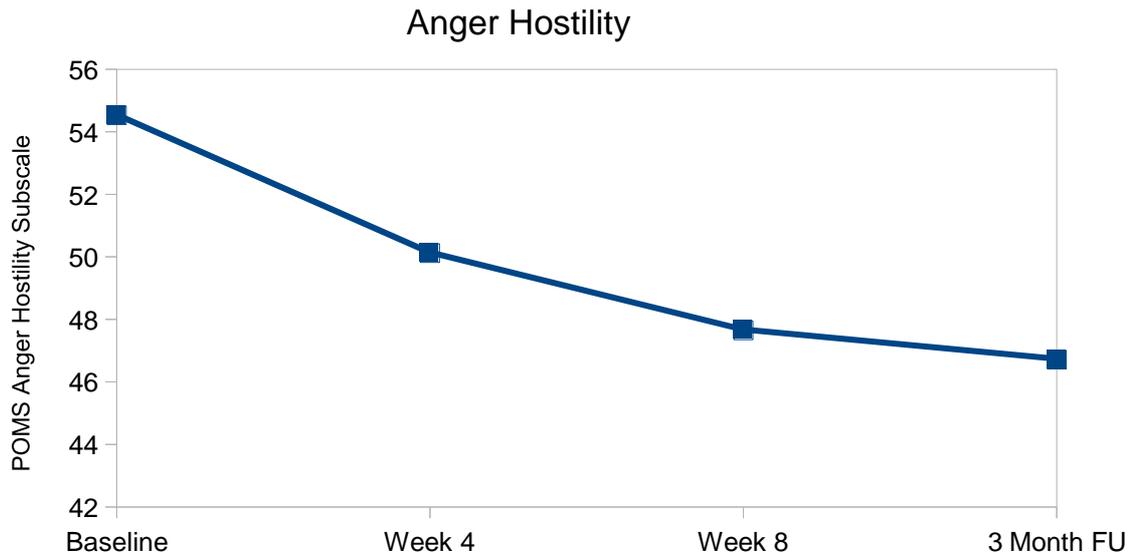


Table. 33 Wilcoxon signed rank tests – Anger Hostility (POMS-2A)

	Z	P	R
Baseline-Week 4	-1.763	.078	
Baseline-Week 8	-2.490	.013	-.35
Baseline-FU	-2.813	.005	-.40

**4.6.2 Hypothesis 5b:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **confusion-bewilderment** midway through the course, immediately after course completion, and at 3-month follow up.

*POMS-2A Confusion Bewilderment Data:* The main overall effect of the POMS-2A *confusion bewilderment* scores indicated a significant reduction over the time of the intervention with a medium effect size,  $X^2(3)=15.611$ ,  $p=.001$ ,  $.306$  (See

Table 34) **This suggests there was a medium improvement between the beginning and the end of the study in confusion bewilderment scores.**

Table. 34 Confusion Bewilderment (POMS-2A)

Within Participants Table (Friedman's Test POMS-2A Confusion bewilderment)				
Main Effect	DF	Chi Square	P	Kendalls W
	3	15.611	<.001	.306
	17			

Based on the shape of Graph 12, the descriptive statistics (See Table 11b for N, Mdn and SD) and post hoc testing using the Bonferoni corrected alpha criteria of .016, scores revealed a there was a significant difference in scores over the duration of the intervention. Although there was not a significant decrease in confusion bewilderment from Baseline (median=53) to Week 4 (median = 52.5),  $Z=-1.612$ ,  $p=.107$ , there was a significant decrease from baseline (median=53) to Week 8 (median = 46) with a medium effect size,  $Z=-2.902$ ,  $p=.004$ ,  $r=-.41$  and Baseline (median=53) to 3 month FU (median = 49.5) with a medium effect size,  $Z=-3.378$ ,  $p=.007$ ,  $r=-.38$  (see Table 35). **This indicates that there were statistically reliable improvements in confusion bewilderment at the end of the study and at follow up thus partially supporting the hypothesis.**

Graph. 12 Confusion Bewilderment (POMS-2A) Main effect.

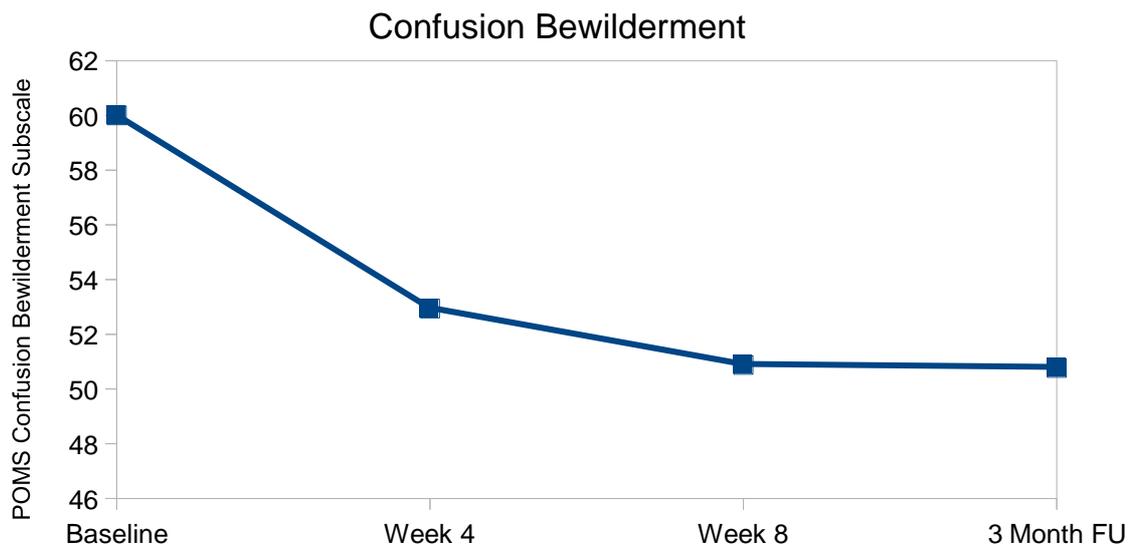


Table. 35 Wilcoxon signed rank tests – Confusion Bewilderment (POMS)

	Z	P	r
Baseline-Week 4	-1.612	.107	
Baseline-Week 8	-2.902	.004	-.41
Baseline-FU	-2.700	.007	-.38

**4.6.3 Hypothesis 5c:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **depression dejection** midway through the course, immediately after course completion, and at 3-month follow up.

*POMS-2A Depression Dejection Data:* The main overall effect of the *depression dejection* scores indicated that there was a significant reduction in depression dejection scores over the time of the intervention with a small effect size,  $X^2(3)=7.934$ ,  $p=.047$ ,  $.156$  (see Table 36). **This suggests that whilst there was improvement it was small.**

Table. 36 Depression Dejection POMS-2A Main Effect

Within Participants Table (Friedman's Test POMS Depression Dejection) Main Effect

	DF	Chi Square	P	Kendalls W
	3	7.934	.047	.156
	17			

Based on the shape of Graph 13, the descriptive statistics (See Table 11b for N, Mdn and SD) and post hoc testing using the Bonferoni corrected alpha criteria of .016, scores revealed there was not a significant difference in scores over the duration of the intervention. There was not a significant decrease in depression dejection from Baseline (median=53) to Week 4 (median = 57.5),  $Z=-4.09$ ,  $p.068$ , from baseline (median=53) to Week 8 (median = 52.5),  $Z=-2.902$ ,  $p.023$  and no significant decrease from baseline (median=53) to 3 month FU (median = 50.5),  $Z=-1.990$ ,  $p.047$  (see Table 37). **This indicates that there were no statistically reliable improvements in depression dejection scores at the various time points thus rejecting the hypothesis.**

Graph. 13 POMS Depression Dejection Main effect.

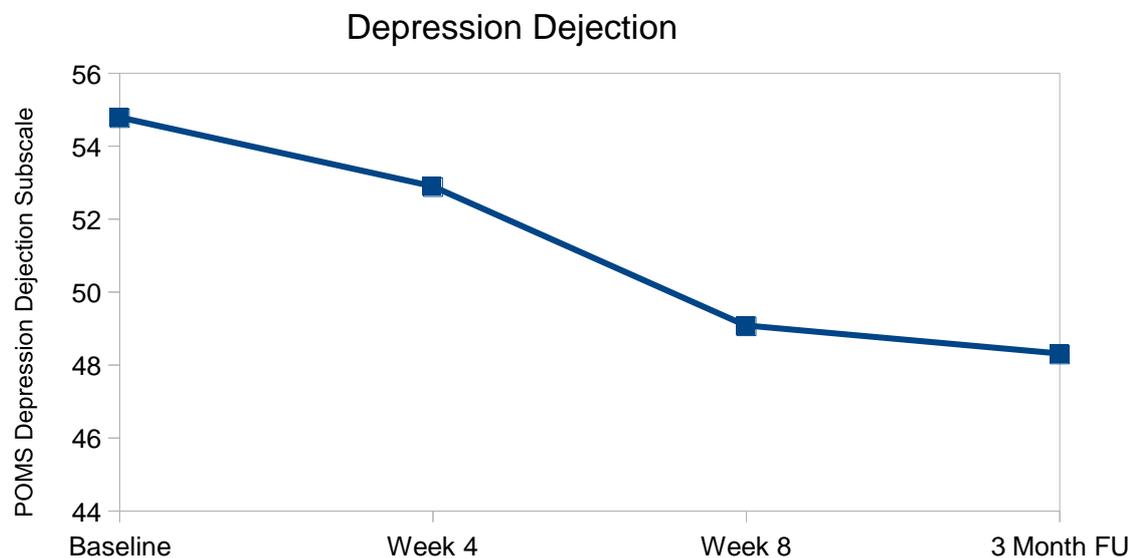


Table. 37 Wilcoxon signed rank tests – Depression Dejection (POMS-2A)

	Z	P	r
Baseline-Week 4	-4.09	.068	
Baseline-Week 8	-2.276	.023	
Baseline-FU	-1.990	.047	

**4.6.4 Hypothesis 5d:** Participants who complete an 8-week MBSR/MBCT course will report significantly lower levels of **tension anxiety** midway through the course, immediately after course completion, and at 3-month follow up.

*POMS-2A Tension Anxiety Data:* The main overall effect of the *tension anxiety* scores (See Table 11b) indicated that there was significant reduction in tension anxiety scores over time with a medium to large effect size,  $X^2(3)=22.962$ ,  $p.001$ , .450 (see Table 38). **This suggests that there were a medium to large improvement between the beginning and the end of the study in tension anxiety scores.**

Table. 38 Tension Anxiety (POMS-2A)

Within Participants Table (Friedman's Test POMS Tension Anxiety)				
Main Effect	DF	Chi Square	P	Kendalls W
	3	22.962	<.001	.450
	17			

Based on the shape of Graph 14, the descriptive statistics (See Table 11b for N, Mdn and SD) and post hoc testing using the Bonferoni corrected alpha criteria of .016, scores revealed there was a significant difference in scores over the duration of the intervention. There was not a significant decrease in tension

anxiety from Baseline (median=56) to Week 4 (median = 51),  $Z=-1.944$ ,  $p.052$ , however there was a significant difference from Baseline to (median=56) to Week 8 (median = 49) with a large effect size,  $Z=-3.576$ ,  $p.001$ ,  $r=-.50$  and a significant decrease from baseline (median=56) to 3 month FU (median = 47.5) with a large effect size,  $Z=-3.660$ ,  $p.001$ ,  $r=-.51$  (see Table 39). **This indicates that there were statistically reliable large improvements in tension anxiety scores at the various time points with the exception of week 4 thus partially supporting the hypothesis.**

Graph. 14 POMS Tension Anxiety Main effect.

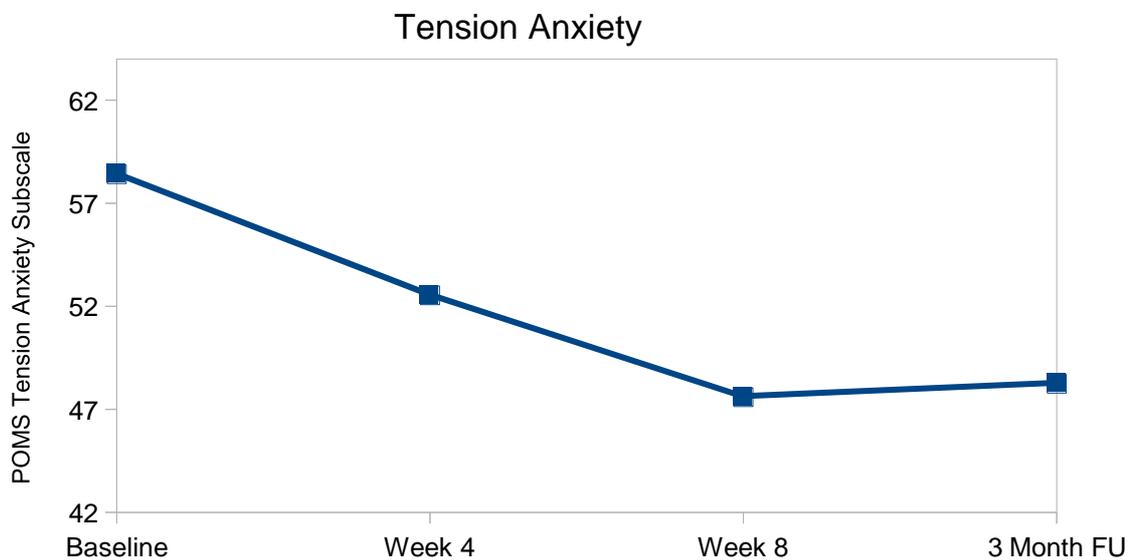


Table. 39 Wilcoxon signed rank tests – Tension Anxiety (POMS) scores

	Z	P	r
Baseline-Week 4	-1.944	.052	
Baseline-Week 8	-3.576	.001	-.50
Baseline-FU	-3.360	.001	-.51

#### 4.7 Summary of Chapter

Findings demonstrate a statistically significant improvement in the primary outcome measures of resilience and mindfulness from the beginning to the end of the study. All facets of mindfulness (observing, acting with awareness, non-judging and non-reacting) improved with the exception of the describe facet. However, findings do not support the hypothesis that improvements for both resilience and mindfulness would occur at all-time points i.e. mid-way through the course, immediately after the course and at 3 month follow up. Most improvement occurred at the end of the course thus results must be treated with caution. There was not a significance difference in mindfulness scores as a result of informal practice out-with the mindfulness intervention.

Findings also show a statistically significant improvement in the secondary outcome measures of total mood disturbance and satisfaction with life from the beginning to the end of the study. There was significant improvement in all aspects of mood analysed (anger-hostility, confusion-bewilderment, tension-anxiety) with the exception of depression-dejection. There was no significant improvement on perceived stress. Findings do not support the hypothesis that improvements in mood and satisfaction with life would occur mid-way through the course, immediately after the course and at 3 month follow up. Most improvement occurred at the end of the course.

Results indicate that the combined MBSR/MBCT intervention informed by (ACT) made a significant contribution to an individual's level of resilience, mindfulness and psychological well-being overall.

## **CHAPTER 5            QUALITATIVE FINDINGS**

Chapter 5 outlines key themes derived from thematic analysis using the post-follow up questionnaires and practice diaries. The key role of this qualitative element was with a view to triangulating the data and adding depth to the findings derived from the quantitative data. The use of rich practical examples to highlight how the training intervention has impacted on individual's behaviour in the workplace was sought.

The questions within the post intervention questionnaire yielded qualitative data pertaining to perceived changes in habits and behaviour as a result of having attended the mindfulness training, the impact these changes have had on one's mindfulness and resilience and examples pertaining to the impact on their lives. The three general themes that the researcher was interested in i.e. habit forming, resilience and values-based behaviours generated 8 organising sub themes from the data collected. The 2 sub themes for habit forming were mindfulness and mindfulness practice, for resilience there was 3 themes: namely emotion regulation, coping strategies and self-regulation and the final theme values-based behaviours to include values –work/life, productivity at work and work/life relationships. The overarching theme running through the whole data set, referred to dimensions of the self.

### **5.1 General Theme 1 – Habit forming**

In response to question 1 of the questionnaire (See Appendix 8) "Have you observed any changes since attending and completing the course?" the author was interested in whether any new behaviours had become automatic and formed habits in the participants: two emerging sub-themes saturated the data: mindfulness practice and mindfulness skills building. These will be considered in turn.

It is apparent that the two themes – mindfulness practice and mindfulness skills building are habits that have formed in the majority of participants post intervention. Most participants talked about how these habits evolved over the duration of the intervention and beyond and described these habits as a series of behaviours that they did not possess prior to engaging with the intervention. When asked about said changes participant comments were extremely positive in that they explicitly mentioned perceived benefits of regular mindfulness practice and mindfulness skills building.

### **5.1.1 Mindfulness practice**

Participants refer to mindfulness techniques with breathing, awareness of the present and the body scan as being the main 3 techniques that are central to the type of practice they continue to engage in. Participants were encouraged to develop their practice of these techniques at home so it is entirely reasonable that these would be the 3 most cited. The questionnaire responses emphasised the participants overriding perception that mindfulness and mindfulness practice has an important role to play in their lives moving forward:

I was unaware of what mindfulness referred to but since participating in the programme I really have committed to making it something I practice regularly. It took me some time to really get into it but having found it beneficial to me on many levels, I am committed to maintaining it. (Participant 3)

I really enjoyed the course and initially I stopped practicing afterwards. However, I noticed my stress levels were higher when not doing my daily meditation. It is for that reason I now practice every other day. (Participant 8)

I found that when I got to about week 6 I got into the groove of practicing the techniques and have continued to practice since. I feel more resilient and better able to cope when I am practising regularly. (Participant 13)

From all the participants surveyed, the majority have continued to engage in mindfulness practice regularly and pick it up from time to time even when they have stopped practice.

All respondents agreed in their perception that mindfulness practice over and above the intervention sessions is beneficial in improving personal outcomes such as stress levels, resilience and ability to cope. The overwhelming outcome referred to by all participants was the ability for mindfulness to reduce stress and they do view mindfulness and mindfulness practice as a stress management tool.

Participants were also keen to emphasise that the benefit of regular practice has had an impact on both their personal life and work life and that the boundary is often blurred. Participant 17 clearly demonstrates that they perceive mindfulness as having the ability to be of dual benefit to them.

Practising mindfulness is important to my on-going ability to deal with the pressure in my job – I actively practice on a daily basis since doing the course. (Participant 2)

I have found the science behind mindfulness useful and this has helped me to embrace and practice it. Practice has become a part of my daily life both informal and formal and it has definitely had an impact on me being calmer at home when things get hectic. (Participant 4)

I am more aware than ever that if I am happier at work then I am happier at home. They are both related. Mindfulness helped improve my work situation and as a result my life at home has got calmer and happier. (Participant 17)

The majority of participants recognised that due to the positive benefits gained from the experience they have subsequently changed their way of life. They have accommodated a mindful approach to life by incorporating daily mindfulness practice into their daily activities. 12 participants (75%) now regularly take part in formal home practice by way of mindfulness meditation techniques such as the body scan and breathing techniques. These are 2 techniques, which were advocated as a practice focus from Week 1 of the intervention thus it is not surprising that these were cited. 6 participants (38%) also recognise informal practice such as avoiding automatic pilot and becoming more aware of sensory experience whilst engaging in everyday activities such as walking, cycling and in conversation as an important daily practice. The majority of participants describe improvements in their attention to and awareness of their current experience as it unfolds (self-awareness) and their ability to know themselves well, subsequently

regulating their thoughts and feelings (self-knowledge) and are able to distinguish how one aids the other:

I am more self-aware than I used to be. Being more aware of the present and how I react to things has helped me to question what I am thinking and develop my ability to be less judgemental and more objective. (Participant 8)

I am more aware of my surroundings and the here and now which has helped me to be more in tune with what I am thinking. There is no doubt that I am more evaluative before I respond, which helps me to control my thoughts and subsequent behaviour more. (Participant 10)

In discussing what changes they have observed it was clear in all participant responses that they consider themselves to be more mindful since taking part in the intervention referring to aspects of mindfulness that they consider to be part of their self-regulatory behaviour which wasn't present pre intervention. This in itself is not too surprising considering the concept of mindfulness was covered in Week 1 of the intervention and then developed throughout all 8 of the weeks. Participants regard themselves as having become more mindful and believe they have improved their mindfulness as a result of the experience:

I was unaware of what mindfulness referred to but since participating in the programme I really have committed to making it something I practice regularly and am more mindful as a result. It took me some time to really get into it but having found it beneficial to me on many levels, I am committed to maintaining it. (Participant 3)

My mindfulness has definitely improved since doing the course, which has made me less judgemental and more aware of my behaviour. I have definitely modified aspects of my habitual reactions to things. Yes I would say I am a more mindful person. (Participant 7)

The second sub-theme to emerge in terms of habit forming was that of mindfulness skills building. Participants talked at length about learning that has taken place as a result of participation in the intervention and refer to mindfulness processes they have adopted as a result., even if not in a direct way

### 5.1.2 Mindfulness skills building

Participants talked in detail about skills that they were taught and learnt. The intervention was designed in such a way that there was mindful learning attributed to Langer, 1999; and mindfulness processes referred to by Weick and Sutcliffe, 2007 incorporated within the design of the intervention even if in an indirect way. Responses from the participants demonstrated quite clearly that participants have developed mindfulness skills that are a combination of learning and processes to help with becoming more mindful.

I have found that I am not focusing on the past as much as I used to. I find I am open to new ways of doing things and it seems to be working. I have come to realise that what I can't control is not worth giving the head space too. It has made me more positive as a result. (Participant 1)

I have definitely become less focused on doing things the way I have always done them. I am more receptive to new ways of doing things as I now realise they haven't always worked but I kept doing it anyway. (Participant 3)

I am more aware of other people's opinions now and more open to the notion that their idea may be another potential solution rather than being so reluctant to other people's views. I also feel I am more aware of how others see me and the impact I have on people. (Participant 4)

Since the course I feel that the biggest change is that I am less judgemental than I used to be. I don't go to meetings with a fixed view on the outcome I seek anymore. (Participant 13)

Langer's mindful learning approach incorporating three characteristics to include: the continuous creation of new categories, openness to new information, and an implicit awareness of more than one perspective and these can be identified within the statements above. Participant 1 makes reference to avoiding the tendency to ruminate on past thought patterns. The mindfulness intervention helped participants to learn how to be present in the moment, to observe thoughts rather than identify with them and to focus on breathing rather than re-living the past. This reframing to avoid rumination is summed up by Participant 15:

Before the course I was terrible at re-playing thoughts in my mind. I just couldn't stop it – over thinking the “what if's” and worrying about things that hadn't even happened yet. Since the course I have been much better at stopping this and I feel less anxious as a result. (Participant 15)

The problems associated with excessive rumination were covered in detail in Week 2 and 3 of the intervention and techniques were practiced. It appears that this has had an impact on the group's ability to focus more on the present. Participant 3 and 4 clearly articulates the resulting improvements in their own self-awareness and awareness of others. This is what Langer refers to when she coined the term openness to new information. If someone is open to other people's view then there is great potential for avoiding tunnel awareness and finding solutions to problems that one may have once thought impossible.

Participant 4 and Participant 13 clearly demonstrate Langer's reference to an awareness of more than one perspective. It appears from the comments that the participants view this new mindful awareness of others as a positive change to their outlook. The comments that mindful learning as demonstrated above has equipped the individual with the skills to develop and reconfigure already available resources, improvise by integrating new resources in order to cope and maintain optimism and develop cognitive competence.

From reviewing the data, participants attribute their success to their determined efforts to act mindfully. The entrepreneur's responses recognise that they have begun to organise themselves in a way that they are better able to notice the unexpected and halt its development and they appear to adopt collective mindfulness processes in also developing similar dynamic capabilities. They also refer to addressing, managing and organising in the face of uncertainty in order to enhance resilience and develop their actions by learning and growing from previous episodes of resilient action:

I have not always been good at learning from mistakes. I am much more mindful of what I can take away from such experiences and see them as an opportunity for growth. (Participant 2)

The environment I work within is particular ambiguous and uncertain- mindfulness has helped me to pay more attention to the detail and

seemingly obvious but often ignored information. When something needs changed I am more proactive now (Participant 3)

For me I need everyone in the team committed. I need to have their buy in and the way I get this is by focusing on action, developing them through training and accepting when things aren't right. I don't always get it but I try hard. (Participant 10)

Before I engaged in mindfulness I was a lot more stubborn. I was reluctant to seek help, sometimes I kept plodding on doing the same thing knowing it wasn't working. I am realising more and more that the people on the coalface usually have the right answer. (Participant 5)

I have always been good at seeking the views of others. I wouldn't say I am any better since doing mindfulness but it has reinforced for me that listening is an underrated skill and brought its important back into sharp focus. (Participant 8)

The above statements demonstrate processes that the participants appear even if sub-consciously to have committed to in their pursuit of entrepreneurial success. The reference to giving greater attention to close calls and near misses by Participant 2 demonstrates an appreciation for what can be learnt from failure. Although mindfulness asks one to focus more on the present, it certainly encourages one to accept the past and take from it a non-distorted viewpoint. Participant 3 is referring to a process of getting to the route cause and how one can make sense of complex signals. Participant 3 also highlights the need for the importance of attention to detail and situational analysis regarding the changing situation . Participant 10 clearly demonstrates a commitment to resilience and the expectation of same in others. The notion that buy in is important has been supported here. Participant 5 and Participant 8 both evidence a tendency to favour a deference to expertise, the final principle outlined by Weick & Sutcliffe, 2001).

From the comments made by participants the quantitative results demonstrated that participant improved in terms of their mindfulness scores and in most improvements in all mindfulness facets. Statements from participants such as "I am noticing more things" (observing facet), "I am better able to articulate my thoughts" (describing facet), "I pay more attention" (acting with awareness facet), "I don't get caught up in my feelings" (non-reacting) and "I don't judge people the

way I used to” (non-judging facet) are all examples of dispositional mindfulness improvements.

## **5.2 General theme 2 – Resilience**

In response to question 2 within the questionnaire (see Appendix 8) “If you have observed changes how do you feel they have impacted on your resilience and mindfulness?” the author was interested in the participant’s views in exactly how the intervention has helped them with their resilience and mindfulness. Three sub-themes emerged: emotion regulation, coping strategies and self-regulation within the theme of resilience.

There was no doubt in the eyes of the participants that both their resilience and mindfulness has improved as a result of the mindfulness intervention. Despite some people expressing varying views as to the degree of this change, there was a strong sense in the responses of all participants that their resilience has improved as a direct result of their involvement in the mindfulness intervention and as a result of improved mindfulness. All participants expressed their view that the 2 are inextricably linked:

I am more mindful and therefore more resilient as a result.  
(Participant 6)

Without a doubt the mindfulness skills I learnt has helped me to bounce back when I get knocks and become more resilient in dealing with difficulty.  
(Participant 10)

I am more optimistic and have a greater range of resources than I had before. I am more able to deal with setbacks for sure. (Participant 2)

I still suffer setbacks but they don’t have the same pull on me. I definitely see myself as a more resilient person than before I took part in the mindfulness intervention. (Participant13).

Participants describe knowledge, skills and abilities that have developed as a result of their sense of improved mindfulness which refer to the 3 domains of resilience i.e. emotion regulation and the affective domain, coping strategies and

the cognitive domain and self-regulation, the self-regulatory domain. Clearly for the entrepreneur's in this group they see emotion regulation as a highly valuable attribute important in enabling themselves to cope with the harsh environment they operate within:

It is important as an entrepreneur to not let emotions get in the way or at least be able to put them in perspective. It is something I have had to work on – it is easy for your emotions to cloud your judgement. (Participant 8)

When things don't go the way you want as they often do when you run your own business, it is easy to get too emotional. That's where it goes wrong – it is important to be able to handle your emotions and avoid too much stress. It is stressful enough being an entrepreneur without your emotions getting in the way. (Participant 6)

### 5.2.1 Emotion regulation

It is clear from all comments that participants perceive themselves as having a greater ability to manage both positive and negative emotions and this has had a marked effect on their mood, their modus of thinking and subsequent well-being during the intervention period and beyond. This ability to regulate one's emotions is referring to the affective domain, which contributes to the development of one's resilience.

The overriding feeling amongst participants is that although they accept that negative and positive emotions are indeed normal and part of everyday life, there is a strong sense that they are better able to regulate them and negate their negative impact more efficiently. It is not surprising that entrepreneur's like to feel in control and their responses with reference to their control over their thoughts is highly welcomed by the group. They talk in a positive way about the ability to balance the negative and positive and their developed ability to choose one over the other

I am more aware of what options I have to deal with unhelpful thoughts when they surface. They have less effect on me, as I am better able to question their relevance. I definitely feel a lot more in **control and it feels great**. (Participant 3)

I am experiencing less negative thoughts than I used to and when I do get them they are having less of an impact on me. I may not be able to change what's happening but I am much more able to changes my **response** to it. (Participant 10)

I can't help the fact that negative things happen and there is no doubt they have an impact but I have learned that I have a choice. I can choose to accept them and let them stick or I can choose to let it go. Knowing that I control that choice has been quite liberating really. (Participant 3)

A very interesting point to note is that all responses given by participants in relation to observed changes were all positive. This is not too surprising as mindfulness encourages people to experience thoughts and feelings in a non-judgemental way. It could be argued that this is further evidence that the mindfulness intervention had a significant impact on mood state as seen in the quantitative results. All participants felt that the mindfulness intervention helped them to adopt more positive thinking strategies:

I am more self-aware of when I am over-thinking thoughts in my mind which influence me in a negative way. I am able to stop these thoughts and instead be more positive in my approach. (Participant 7)

Since the course, I am trying to focus more on the good, which is making me more self-compassionate to others. I find that I don't dwell on the past like I used to. (Participant 3)

I am finding myself living life much more in the present and having down time. I am more positive as a result and more content in my thoughts. I have got my work-life balance just about right. (Participant 9)

Participants make reference to positive psychology techniques, which are practiced in mindfulness interventions and were covered during the 8-week period such as thought stoppage on week 2 and 3 (Participant 7), taking in the good in week 5 (Participant 3) and self-awareness in week 4 and 6 (Participant 9).

This description of their enhanced ability to choose one thought over another may be why they perceive their thoughts as more positive, this was observed by the majority of the participants. Participant 4 refers to optimism, Participant 7 happiness and Participant 10 contentment, all by-products of positive thinking.

I have more hope for the future since I finished the course. (Participant 4)

I feel happier about myself. (Participant 7)

I am more content than I used to be. (Participant 10)

Participants in the main describe having experienced profound changes in their ability to choose positive thoughts over negative ones and there was a strong sense amongst participants that their well-being has improved as a result. Specifically, psychological well-being was singled out with participants citing improvements in perceived mood, stress and satisfaction with life generally resulting in a feeling of improved vigour and less fatigue amongst the participants post intervention.

I found that during the course I had significantly more energy and just generally in a much more positive mood. Although it has taken a dip it is definitely still better than I was before I did mindfulness. (Participant 8)

I am more accepting of my feelings and as I result less emotional than I used to be. I am better able to **choose** how I act as a result of my emotions. My partner said I am calmer and appear less tired than I used to be so that can only be a good thing. (Participant 7)

Week 5 of the intervention specifically focused in on “taking in the good” and again reiterated in the Week 7 activities with the session on “life nutrition” was designed specifically to develop positive thinking and sense of well-being. The technique of learning to enjoy the positive and savouring positive moment’ and experiences as a method of retraining the brain and avoiding negativity bias appears to have resonated with participants. Participant 3 sums this up:

I have found that by enjoying the good things in your life and experiencing them for all that they are has had a profound impact on my ability to remain positive. This has no doubt helped me to develop a greater sense of feeling well both in the inside and out. (Participant 3)

## 5.2.2 Coping Strategies

All participants refer to their shared perception that they have further developed skills for coping since participating in the intervention. These refer to changes in the cognitive domain involving the development of mental skills and the acquisition of knowledge, which help to develop one's resilience.

It follows that if one experiences positive emotion then they are more likely to appraise an experience as positive and have subsequent feelings that are positive in nature. Participants described this in detail where they report positive feelings of emotions reducing negativity bias that then break down unhelpful negative cognitive schemas that then give further feelings of positive emotion. This cycle is described as a repeated loop/cycle and improves continuously like a record on constant repeat.

Although I still have a tendency to dwell on the bad things in my life, I am not as hard on myself as I used to be. I definitely am working on **accepting** my situation for what it is without attaching a story to it. I do think this is helping me to **cope** better with stress. (Participant 6)

I am more aware of my surroundings and aware of the need to develop my ability to step aside. I used to fly off the handle at silly things but Alessio taught me a technique where I am able to **consider thoughts** as they arise and consider whether they are helpful or not and why I think about it the way I do. It encourages me to think about why I am getting angry and helps me process it and decide to accept it or not. It's a work in progress but it is definitely improving. (Participant 11)

I have had quite a few setbacks recently and I have found I have bounced back more quickly, I definitely don't see things as the end of the world like I used to. I can **appraise** my thoughts and put them into **perspective** better than I used to - I am happier as a result. (Participant 1)

The statements by the participants make a good case of the importance of coping strategies in the development of cognitive transformation. Participant 6 talking about being accepting of a situation without attaching a story to it is a good example of what Kabat-Zinn meant by being non-judgemental in your thoughts. Participant 11 makes reference to stepping aside and considering their thoughts (a technique taught throughout the mindfulness intervention) which highlights the

role of mindfulness in developing the person's ability to develop cognitive flexibility and improved attention (Moore & Malinowski, 2009) in different situations. Participant 1 mentions not seeing things as the end of the world and an altered perspective on things. Again a good demonstration on how the way one perceives a situation and his/her perspective towards their own thoughts has powerful results. In this case the person appears to be happier due to the avoidance of developing distorting schemas and attaching a negative narrative to the situation one finds themselves in.

Resourcefulness is a key element in developing resilience. Being resourceful helps the individual in developing a toolkit by which to regulate their thoughts, feeling and actions. The more skills one person has that they can call on in times of need the more likely they will be able to cope or bounce back in the face of adversity.

I know how to recognise stressful emotions much more quickly and have a toolkit, which allows me to step on to **the bridge** for a short time and be calm, focussed and left to consider my thoughts for a period of time. (Participant 3)

I am much calmer under pressure, I **use people around me** and am less scared to ask for help than I used to be. I have found that talking things out is actually really helpful. (Participant 12)

I have more **balance** now between work and social activities. When things get too much and I feel stressed I try to do something fun which instantly helps me to relax. (Participant 4)

When I am having a bad day I am trying hard to **focus on the good** things in my life and be thankful for what I have. I guess it's about shifting the focus. This part of the course really resonated with me – I mean there are so many people worse off, it really does put things in perspective. I am more self-compassionate to myself. (Participant 7)

Participants refer to mindfulness skills that were taught on the course such as getting back to the bridge (week 3), importance of social networks (week 6), work/life balance (week 6), taking in the good (week 5) and self-compassion (week 7). The resourcefulness of the group in being able to call on these new learnt skills are an important aspect in developing self-regulatory behaviour and becoming more resilient.

### 5.2.3 Self-regulation

The ability to self-regulate ones behaviour is an important aspect in helping one become more resourceful and ultimately more resilient. It is therefore not surprising that participants indirectly refer to this self-regulatory behaviour.

It is clear from all comments that participants perceive themselves as having a greater ability to regulate their behaviour and this has had a marked effect on their mood, their modus of thinking and subsequent well-being during the intervention period and beyond. This ability to regulate one's behaviour is referring to the self-regulatory domain, which contributes to the development of one's resilience. Throughout the data set participants make reference to the capacity of mindfulness for developing dimensions of the self (i.e. self-awareness and self-knowledge) but as this is ultimately self-regulatory behaviour it is discussed here.

Participants on numerous occasions describe a renewed focus for living in the present as a result of becoming more self-aware. The words **attention**, **aware** and **present** are the most frequent words expressed, which were present in response to every question posed. There are rich descriptions of self-improvement as a result of the intervention and their own home practice beyond the intervention time period. Participants recall becoming more conscious of one's thoughts, ideas, feelings, actions and interactions with others since studying mindfulness. Many of the participants recount this awareness as having emerged through the mindfulness techniques taught and learnt on the course. This is considered to be a good indicator that there is a developed concept of the self.

I am more **aware** of my emotions from moment to moment since doing the course. (Participant 8)

I am much more **self-aware** now and enjoy the present more. (Participant 11)

I am more aware of my strengths and what I need to improve on. I am clearer on where my thoughts and emotions take me and when they aren't helpful. (Participant 6)

Participants appear to have a clear perception of aspects of their personality to include thoughts, feelings, beliefs at any given time. It is fair to assume that if one is more aware of where they are then you they more likely to help said individual in taking control of their emotions and make the necessary changes they want.

In describing the improvement in one's self-awareness, participants move on to describe the information they draw upon when finding an answer to the questions "What am I like?" Participants describe a shared sense that the mindfulness intervention has informed their mental representations of themselves developing a deeper knowledge and understanding of why they feel the way they do. Being able to process more information, which in turn develops a truer representation of the self was apparent:

I feel like **I know myself** much more than I did before. (Participant 10)

I am much more able to process my feelings and **why I think** the way I do. (Participant 2)

As discussed earlier, the majority of participants describe improvements in their attention to and awareness of their current experience as it unfolds (self-awareness) and their ability to know themselves well, subsequently regulating their thoughts and feelings (self-knowledge) and are able to distinguish how one aids the other:

Participant 9 and 15 are rich examples of the suggested relationship between the cognitive state of mindfulness (self-knowledge) and experience of the self (self-awareness):

I am much more alert to **what** I experience in the here and now and how I feel and think about that experience. What I have noticed is that this has helped me have greater understanding and be more accepting of **why** I feel and think the way I do. I am less emotional. This helps me to moderate my behaviour more than I was able to do before, it helps me to stay more positive and keep a clearer head. (Participant 9)

Being more aware of my current situation and my thoughts and feelings has helped me to feel less stuck and more confident in my ability to get through bad times. My head is less fuzzy and I find I am more able to find solutions to my problems. (Participant 15)

Participant 9's reference to self-awareness of immediate experience (minimal self) i.e. the **what**; and self-knowledge of conceptual thoughts (narrative self) i.e. the **why**; and subsequent self-regulatory behaviour supports the view that self-concept is one of the most critical components in affective and behavioural regulation. It is apparent from this statement that the participant makes a clear connection between improved mindfulness and a developed self-awareness, which in turn helped said individual in developing self-knowledge. Participant 15 refers to being less "stuck" and less "fuzzy", which may be due to improved self-concept clarity as a result of improved self-awareness and self-knowledge. Both participants demonstrate affective, cognitive and self-regulatory resources, which seem to have made both participants more resilient following the intervention period.

### **5.3 General theme 3 – Values based behaviours**

In response to question 3 within the questionnaire (see Appendix 8) "please give the most significant changes?" the author was interested in the participant's views on exactly how the intervention has helped them in their daily lives. Three sub-themes emerged: values, productivity and relationships (work/life) within the theme of values based behaviours. The theme to emerge around workplace values, gives another indication that individuals are becoming more self-aware, have a more developed self-knowledge and greater self-concept as a result. The idea that improvements in mindfulness have benefits to their work/life appears to have been substantiated in the comments across the board by the majority of participants.

### 5.3.1 Values – work/life

It is clear from the data that there has been a conscious shift in values amongst the majority of participants. Participants emphasise that they have observed a change in their values based judgements both at work and in life as a result of the course, which in turn has given them varying levels of clarity on the values that are important to them. Participant's ability to clearly and confidently define one's values demonstrates a developed stable and consistent view of the self. To articulate what is important to you and to clearly know your value set is to have an awareness of what you experience and a reflective non-distorted knowledge of the self. Participants reference to improved appreciation of ethics and ethical ways of working appear to have been as a direct consequence from participation in the intervention itself. Value based goals were covered in sharp focus in the activities within week 7 and 8 of the intervention which was informed by ACT, therefore it is not altogether surprising that the participants make reference to this. The practitioner it appears has managed to deliver a secularised package, which has promoted, emphasised and retained the ethical foundations of the practice.

The most prominent shared values amongst all participants related to changes in respect, accountability and compassion. Not only did participants report observing a change with regards to the enactment of these values but they stress that these values are more important to them not only in receiving it from others but in displaying them in themselves.

In asking participants to reflect on changes they have observed since participation in the course there was an overriding feeling that they had developed a deeper sense of compassion for people since the intervention. People clearly felt that they had more regard for the feelings, wishes and/or rights of others. Participants were quite specific in this in that they mention an improved respect for people within the work environment.

Respect is more important to me now than ever. I have a stronger sense of treating people how I want to be treated. (Participant 2)

My collaboration with others has improved. I myself have noticed that I am becoming less defensive and I can look back and see why people may have been intimidated by that.. I am not perfect but it is definitely improving – I generally have more respect for people. (Participant 8)

I feel I have more honesty about my feelings – I can articulate who I am and my integrity has improved as a result. People respect me for it and I respect their honesty too. (Participant 9)

I am more aware of how my actions rub off on other people and it is clear to me now that I am not always respected for my direct approach. I have sat back and thought about how I want to be seen by and I am definitely more reflective as a result. (Participant 16)

These statements demonstrate that participants have an overall greater “awareness” for both themselves and others. Participant 8 and 16 make reference to “how other people perceive them” gives some insight into the idea that with a greater awareness for yourself you are more likely to develop a greater understanding of how you are seen by others. The idea that mindfulness develops both a greater self-awareness and self-knowledge and that this gives greater self-clarity is evident within these statements.

Another clear change participants perceived was as a result of the intervention was the feeling that in becoming more mindful they had developed a great sense of accountability. The majority of participants report feeling more responsible for their feeling and actions. This is in line with the findings within the literature that suggest that with a greater sense of self- awareness and self-knowledge that one develops a greater ability to regulate one’s behaviour.

I am steadily realising that my behaviour is my responsibility and I have the power to change it for better or worse. (Participant 12)

I am finding I feel more responsible for my feelings and actions and it feels quite liberating. Before I done the mindfulness course I tended to blame my mood on everyone else. (Participant 1)

I am more aware when I am not in a good mood and I am better able now to step back from it and make small adjustments to how I proceed from there. (Participant 7)

The key tenant of mindfulness practice in keeping with the Buddhist tradition is in the teaching of compassion. It is clear from the values that participants refer to having further developed as a result of the intervention, is reference to a concern for the misfortune or suffering of not only themselves but also others. An interesting point is that when asked about observed changes, most participants referred to the development of values before referring to development of outcomes. The author feels that the deliberate decision to use ACT within the MBSR/MBCT package has brought this into sharp focus and may be a contributory factor to the participants perceived improvements in this area. Participant 16 & 3 refer to a deeper sense of self-compassion and Participant 4 & 11 demonstrate how they feel it has resulted in a greater compassion for others.

I am so much more compassionate towards myself therefore I do feel I expect people to treat me better than I did before. But it goes both ways. I am working on being more compassionate to my peers and I think they are picking up on it. (Participant 16)

It may seem strange to say this, but I feel I know myself more now and have a deeper understanding of what I will and won't accept at work. I am much clearer on the values, which are important to me and it has made me more compassionate as a result. I have a stronger ethical code in terms of how I work. (Participant 3)

I am much less critical on myself than I used to be which has helped me to also become more aware of the feelings of others. (Participant 4)

Since the mindfulness training, I have noticed that I am more compassionate to others and I do find I try to do more to help people in their hour of need. (Participant 11)

It is clear from these statements that the ethical dimension inherent in the practice has been retained within the week-to-week content delivered by the practitioner.

### **5.3.2 Productivity at work**

Participants give rich accounts of the benefits of their mindfulness practice on increased productivity and focus at work. Productivity rests on focused human

attention” and the key premise of Kabat Zinn’s package is on the development of both attention and awareness. Therefore, it was not surprising given the benefits described and the background of the participants i.e. entrepreneurs that they referred to having noticed improvements in productivity.

Participants describe the use of mindfulness techniques i.e. mindful breaks, being in the present & thought stoppage in helping them to develop greater focus and concentration, which in turn has helped them to be productive.

I have learned to take mindfulness breaks and get more work done as a result. I would say I output 20% more than I used to. (Participant 2)

I am more organised at work now and more focussed when I commit to focusing on the here and now. I used to spend long periods of time thinking about things that had gone before that I couldn't even change. I also spent long periods of time thinking about non-related work stuff too much. My organisation has improved as a result. (Participant 3)

I can concentrate more on a task rather than jumping from one thing to another. When I notice my attention slipping I am able to bring my thoughts back to what I should be doing. I still do get distracted but it's less frequent. I am more attentive to small detail than I used to be (Participant 9)

Participants make clear reference to improved outputs that they have observed since embarking on regular mindfulness practice. Participant 2’s reference specifically to the words “increased output”, participant 3’s sense of improved organisation skills and participant 9’s observed development in attention, are all good examples of where participants have a sense of improved productivity. It may be that the additional element of goal setting added to the intervention content has had a direct benefit to improving aspects of workplace behaviour linked to productivity.

Another interesting point to note is that participants don’t only perceive to have increased the volume of their work and overall output but they also perceive their work to be of a higher quality.

I have noticed that I produce higher quality of work due to being so much more focused. I regularly submitted reports, which had spelling mistakes and grammatical errors. In hindsight report writing is an area of the job I don't like and I don't feel I would engage fully in it before, I would always think about the end before I had even started the job– that has changed. (Participant 6)

My finished work is of a higher quality generally than it used to be and it is definitely more consistent. A practice I didn't do before mindfulness was step back and reflect on what was in front of me. I would just soldier on in automatic pilot. I have forced myself to consider its content for what it is. (Participant 8)

Participant 6 makes reference to being more fully present and Participant 8 refers to being more reflective and avoiding automatic pilots, both key techniques taught within a mindfulness intervention.

### **5.3.3 Work/life relationships**

How entrepreneurs feel about people they work with or come into contact with can impact how effectively one accomplishes tasks. Positive relationships help create productive teams, ultimately affecting a company's bottom line. Successful work relationships often extend beyond the workplace and into the personal lives of the entrepreneur themselves. Entrepreneurs often struggle with feelings of isolation (Bruder, 2014) and loneliness thus the author argues that it is critically important for entrepreneurs to develop good relationships both at work and in general life. Participants refer to developments in relationships as a key aspect of change as a result of the mindfulness intervention experience. Participants make the link between improvements in relationships and the development in their values-based judgements and make specific reference to an increase in both tolerance and compassion. Reference to these changes as having a positive impact both in work and in life was clear in the majority of participants.

I am more tolerant of colleagues' views than before which is helping me to work more closely with them even if we don't have much in common. (Participant 4)

I do feel that I am now more compassionate towards a person, which has helped me to reduced relationship barriers between others and myself. (Participant 7)

It seems a bit strange saying this, but I am definitely getting on better with my work colleagues than before the mindfulness course. A few people have said that they have noticed a change in me. They think I am more tolerant of others and a bit more laid back. (Participant 8)

Since I did the course, I have noticed that my home life has improved. I think it's because I have made a conscious effort to give more time to my family. (Participant 13)

It is not all too surprising to the author that the reference to stronger relationships extends beyond work and into the home. The intervention in week 4 "driving in the right gear" highlights the issue with using one emotional regulation system at the expense of other. Entrepreneurs spend much of their time in drive and achievement mode at the expense of soothing mode. Reference to the soothing system asked the entrepreneurs to consider when they take time out and engage in activities that are designed to sooth and recalibrate the system e.g. engaging in a hobby, spending time with family and/or friends. Week 8 also reiterates the importance of increasing the number of sustainers in one's life and reducing the number of drainers. Clear reference was made to spending time with family surrounding by support and affection as a clear way of developing the soothing system. The comments by participant 14 and 5 appear to suggest that they have indeed made a conscious shift to work on this area of their life.

I used to feel guilty when not at work and taking time out for me. I now realise that it is important for my happiness to do fun things that don't involve the day job. My relationships at home are stronger as a result as I feel I get me time. (Participant 14)

I have made a conscious decision to spend my weekends with my family and refrain from doing work related activity. I have to be honest I am a better person for it and my wife commented the other day that it has brought us closer together. (Participant 3)

This clear sense of re-connection amongst participant with people in their lives is something that participants have noticed both at home and at work. Again the descriptions given make the link between development in values (i.e. compassion and respect) and improvements in relationships. It appears from both statements that the participants had indeed made a shift in terms of their perceived respect for the people they had difficulty with and had shown compassion in terms of reducing the impact the relationship had had on them.

I had a difficult challenge at work as I used to date someone I work with but we have since split up. We didn't talk for over a year but since studying mindfulness I felt it was not good to hang onto the past. We are not back together but I have been able to put our differences aside and we are now at least talking. (Participant 12)

I hadn't spoken to my mum for 2 years after a fall out but I did a lot of reflection after the mindfulness course and I felt really quite bad that people were hurt over a stupid argument. I decided that life is too short and I didn't want to hang on to bad feelings and I definitely don't want my mum to suffer either. We aren't close but I have got back in contact. (Participant 9)

The comments above give powerful examples of how participants have managed to reduce barriers to enable positive change. Week 3 of the intervention spent time asking the participants to embrace difficulty and use mindfulness techniques to aid one in developing a learned acceptance of their situation. Participant 8 highlights the perception that mindfulness has reduced barriers:

I have never been that close to my family as I am quite different to my parents and siblings. I never really felt they understood the world I live in but... mindfulness has made me more aware of my need to have people around me who have my best interests at heart. I have decided to not hold onto the past and not fixate with too far ahead in the future. I also realised that I can take control and change the outcome of what happens to me. Mindfulness helped me to stop putting it off and overthink the negatives - I have since reconnected with my family. (Participant 8)

I feel that mindfulness has helped me become more approachable to others. I am more compassionate and I feel like people have picked up on it. People at work are more open towards me now and I am happier as a result. (Participant 5)

I have always been a victim of over-thinking everything. It is the number one thing that holds me back. I didn't feel confident enough to work on relationships but as a result of staying rooted in the here and now and reducing fear I have managed to go on my first date and I am hopeful for the future. (Participant 15)

#### 5.4 Summary of Chapter

It is clear from the evidence put forward that there is a perception amongst all participants that they improved their resilience directly as a result of the mindfulness intervention. There is a perceived improvement in their ability to call on psychological resources in dealing with emotions (affective), developing skills for coping (cognitive) and in managing their actions and behaviour (self-regulatory). These perceived improvements in all 3 domains, are ultimately critical in helping to improve one's resilience.

The participants make reference to habits that they have formed post intervention relating to their on-going mindfulness practice and subsequent ability to act mindfully. The quantitative data adds valuable insight into the mindfulness skills building and mindfulness processes that appear to have been developed and which has aided participants in developing a mindfulness toolkit. The data presented gives rich examples of Kabat-Zinn's (2003, p.145) conceptualisation of mindfulness as being an "**awareness** that emerges through paying **attention** on purpose, in the present moment, and **non-judgementally** to the unfolding of experience moment to moment". This isn't surprising considering participants did follow the MBSR protocol. Participant's frequently referred to the words **awareness** and **thought** in the same sentence which the author believes is the participants sub conscious acknowledgement of the relationship between the cognitive state of mindfulness (self-knowledge) i.e. **thought** and experience of the self (self-awareness) i.e. **awareness**.

The findings also give an insight into the perceptions held by the majority of participants that the intervention and subsequent habits formed have had a

significant impact on one's values-based judgements and subsequent relationships both at home and at work. The idea that the mindfulness intervention has retained an ethical dimension inherent in the foundations of the practice is an exciting finding.

## **CHAPTER 6 DISCUSSION OF RESULTS AND FINDINGS**

The primary aim of the present study was to explore the role of mindfulness in the development of resilience in entrepreneurs. Secondary objectives (mood, stress and satisfaction with life) were included to consider participants perceptions on their psychological wellbeing. This chapter begins with a summary of the studies key findings in an attempt to fulfil the aims of the study and to establish the degree of corroboration to the main hypothesis and sub hypotheses. In section 2, findings are discussed in light of the literature presented in Chapter 2 and the role of mindfulness in the development of resilience considered in more detail. Section 3 considers the relationship between resilience, mindfulness and psychological well-being whilst Section 4 considers the development of the ethical dimension in secularised mindfulness programmes. The chapter concludes with a discussion on the role of mindfulness in entrepreneurship, education and training. Participant 15 is specifically referred to as a case assessment as this participant was the only person in the group to suffer a major life event just before the intervention start date i.e. in the month prior. The author therefore thought this would be worthy of closer examination due to the notion that resilience improves by your psychological resources being put to the test and practising what you have learnt (Coutu, 2002).

### **6.1 Key findings**

Consistent with other MBSR/MBCT intervention findings (Chaskalson, 2011), this experimental study provides further support for the effectiveness of Kabat Zinn's (2003) eight week secularised mindfulness intervention protocol for increasing resilience in the entrepreneur. The author argues that the quantitative and qualitative results are in line with other mindfulness interventions, which demonstrate improvements in psychological resources in all 3 domains (affective, cognitive and self-regulatory) resulting in improved resilience. Improvement in the affective domain (Burch & Penman, 2013; Desbordes et al., 2012), the

cognitive domain (Chisea et al., 2011; Moore & Malonski, 2009) and the self-regulatory domain (Hart & Ivztan, 2013; Ryan & Deci, 2006) are evident within the present study and will be explained using both the quantitative and qualitative results. Results demonstrated that resilience improved week on week in response to the mindfulness intervention, with greatest improvements evidenced in the period between week 4 and week 8 and improvements tailing off between week 8 and week 12. This adds support to the consensus that 8 weeks is the optimum timeframe for the delivery of an MBSR/MBCT intervention.

To the author's knowledge, this is the first study of its kind, which evaluated the impact of an eight-week mindfulness intervention specifically designed for entrepreneurs. The brief duration of the intervention are particularly appealing characteristics of the intervention itself.

The evidence put forwards provides preliminary support as to the potential benefits of mindfulness training for entrepreneurs specifically and its potential role in developing one's resilience in coping with and lasting the entrepreneurial journey. The findings give insight into the potential of secularised mindfulness programmes to develop both outcomes (e.g. improved resilience and mindfulness) whilst at the same time develop values-based behaviours as a direct result of the ethical dimension inherent in the practice.

## **6.2 Mindfulness and the development of resilience in entrepreneurs**

### *Resilience*

The quantitative results confirmed the hypothesis that resilience would improve in response to a mindfulness intervention and showed that resilience improved over time in response to the intervention with a medium to large effect size. However, as the main effect was between week 4 and week 8 results must be treated with caution. The main effect scores on the Connor Davidson resilience scale indicating that scores improved over time supports Coutu's (2002) view that resilience can be both taught and learnt (Coutu, 2002) and that it can be taught

through participating in psychological interventions which utilise mindfulness techniques (Lightsey, 2006). The qualitative findings provide extra data in support of the quantitative results which are in support of the hypothesis. Participant's perceptions that they had experienced improvements in the affective domain (negative/positive emotions, positive thinking and well-being), the cognitive domain (coping skills and resourcefulness and in the self-regulatory domain (self-awareness and self-knowledge) leading to a compelling sense of improved resilience. Furthermore, participants attribute the development of these psychological resources as a direct result of participation in the mindfulness intervention and subsequent improvements in mindfulness.

With the exception of week 4, resilience scores increased in line with mindfulness training. The author argues that it is plausible that participants may have given an overinflated self-report score at week 1 as they were blissfully unaware of the existence and/or relevance of the skill area i.e. their resilience skills, or that they had a particular deficiency in the area concerned. This apparent lack of self-awareness has been referred to as the Dunning-Kruger effect (Kruger & Dunning, 1999) or cognitive/negativity bias (Beck, 1976) wherein persons suffer from illusory superiority when they mistakenly assess their ability as greater than they possess. The cognitive bias of illusory superiority derives from the metacognitive inability of people to recognise their own limitations and/or weaknesses without which they cannot accurately evaluate their actual competence. Dunning and Kruger (1999, p.1123) state that the cognitive bias of illusory superiority results from an internal illusion of people of low ability and from an external misperception of people of high ability, that is "the miscalibration of the incompetent stems from an error about the self, whereas the miscalibration of the highly competent stems from an error about others".

Despite different conceptualisations offered i.e. beginner's mind (Suzuki, 1970); skilled incompetence (Argyris, 1986) and more recently Darwin's (2014) model of unconscious incompetence, they all refer to this lack of self-awareness as a common theme in people when on the path to becoming more mindful. At week 4, the evidenced dip in resilience scores may at least partially be explained by the notion that participants were becoming consciously aware of their own incompetence or improving competence. Participants described in rich detail how

they experienced a profound shift in their self-awareness the more the course progressed. Darwin (2014) argues that you need to become aware of the existence and relevance of a skill before development of the new skill or learning can take place. This is further corroborated by participant comments in that they explain that in becoming more self-aware (what their thoughts and feelings are) they developed greater self-knowledge as to (why they think and feel the way they do), which in turn helped them to develop their self-regulatory behaviour (how they act and behave). This supports the view of Vago & Silbersweig, 2012; that mindfulness with its demonstrated connection to self-awareness may be one such quality serving to sharpen self-knowledge and self-concept clarity.

Participants report these benefits in such a way that it supports the idea that resilience is cyclical in nature as suggested by the author in the literature review ( see **Figure 5** on page 76) in that it is a development, which occurs in a recurring loop. That when one experiences benefits in the affective domain, they then experience benefits in the cognitive domain, which in turn develops the self-regulatory domain. The more one then experiences controlled self-regulatory behaviour this results in improvements in the affective domain and so the cycle continues. The participant's comments suggest greater self-awareness and self-knowledge, which points to improvements in the affective & cognitive domain. The author argues, that having a more positive outlook (referred to as optimism by Fredrickson (2009) is a pre-requisite to becoming more resilient. When people can see themselves as they really are (Carlson, 2017) due to being fully aware of what they think and feel (self-awareness) and why they think and feel the way you do (self-knowledge) they build psychological resources that encourage positive ways of thinking. They begin to feel better (affective), have less distorted thoughts, rely less on pre-developed negative schemas (cognitive) and subsequently find it easier to manage their thoughts, feeling and resulting actions (self-regulation) thus becoming more resilient. Kabat-Zinn's emphasis on being non-judgemental to the experience as it unfolds ran through all eight weeks of the mindfulness intervention and associated practice and is thought to have been instrumental in the participants developing a more positive outlook.

Developments in the affective domain are extremely important to the development in resilience in the entrepreneur. Referring back to the literature

review it was clear that the ability to deal with positive and negative emotion (Hayward et al., 2010; Baumeister et al., 2001) is a central component of becoming resilient. When in adverse conditions and faced with difficult circumstances it is imperative that entrepreneurs remain positive. The author believes that the affective domain needs to be improved before the other 2 domains i.e. cognitive and self-regulatory will follow. The quantitative results showed significant improvements for mood and satisfaction with life, and no change for stress during the intervention period. It is therefore plausible to surmise that the increases in psychological wellbeing were as a result of the participants experiencing improvements in positive thinking, which consequently improved mood & life satisfaction.

As a key aim of any mindfulness intervention is to promote awareness of the self (Vago & Silbersweig, 2012) the temporary reduction in scores at week 4 is hardly surprising. The content of the week-by-week sessions emphasised the development of a shared knowledge and understanding of both the construct of mindfulness and resilience and what it means to be both mindful and resilient. The author argues that the mindfulness training in the early weeks specifically targeted improvements in self-awareness, which in turn improved ones awareness of their own resilience, the first step on the path to becoming more resilient (Hanley et al., 2017).

It can be argued that at week 4 the participants would have been aware of the existence and relevance of the skills they were building. Suzuki's idea of the beginners' mind is very important here. "If your mind is empty, it is always ready for anything, it is open to everything" (1970, p.21). The contrast frequently made is between this and the expert mind, with the recommendation to always keep your beginners mind. But as Darwin points out "in the spirit of Zen, it is not either/or". The expert mind has value and it is unwise to discount it but "to learn as adults – to truly learn – we must simultaneously be of a mind like a young child and be fully cognizant of all that we already know" (2004, p.194)

The author makes the case that it is entirely plausible that the entrepreneurs at week 4 would have been more able to differentiate between mindful and less

mindful behaviour, and thereby better understand the interrelationships between them and their potential impact. Mindfulness requires the ability to effectively carry out novel actions in a flexible manner, coupled with a sustained high level of attention. Mindlessness (Langer, 1997) on the other hand, involves routine driven behaviour and reinforcement learning – the development and operation of automatic pilot. Automatic pilot can be helpful in completing day to day duties that do not require high levels of attention but using automatic pilots to help solve new problems may limit one's awareness and openness to new information, which are resources that are required if one is to become more resilient and bounce back from setbacks.

The author argues that for entrepreneurs to develop the ability to switch from mindful and less mindful behaviour and know when it is appropriate to do so, they need to continue to develop self-regulatory behaviour. This self-regulatory behaviour however, is not possible without a continued development and improvement in both self-awareness and self-knowledge. Learning more about oneself and how and why you feel the way you do is new beginner information that if open to receiving, can be extremely beneficial to helping oneself in developing more expert processes and decision-making abilities. The author believes that here in lies the magic of mindfulness training in that an intervention which focuses on developing both self-awareness and self-knowledge; promotes and develops the affective, cognitive and self-regulatory components of resilience. The qualitative data presented demonstrates that participants perceived benefits in all 3 domains following participation in the intervention.

The results show that it takes the whole intervention period (eight weeks) for resilience to reach its highest score with resilience scores decreasing slightly at the 3 month follow up point but remaining elevated above the week 1 and week 4 means. As found in a recent study by Pidgeon et al. (2014) who evaluated the effectiveness of a mindfulness retreat on enhancing resilience, findings in the current study indicates the possibility of a sleeper effect, whereby resilience, enhanced by increased mindfulness and psychological wellbeing, takes a longer time to develop than mindfulness itself. It is possible that, over time, with increased awareness of internal and external events (self-awareness) and fewer

harsh self-judgements (self-knowledge), the participants gradually increased their ability to respond more skilfully and adaptively to stressful events. This is consistent with Pidgeon et al. (2014) who found that participants of the study reported significant increases in mindfulness scores long before improvements in resilience scores. The broaden and build theory of positive emotions (Fredrickson, 1998) postulates that recurrent experiences of positive emotions, and subsequent broadened outlook, allow individuals to build a range of personal resources. Findings of Pidgeon's study and the current study are consistent with the broaden and build theory; in that increases in resilience appear to have developed only after increases in mindfulness. Research on resilience also suggests that to become more resilient one needs to put into practice resources they have learnt in a real-life scenario that demands one to call on these resources (Bullough & Renko, 2013). Interestingly, when asking participants if anyone had experienced a major life event during the intervention period, the only participant to say yes was participant 15. Subsequently it was participant 15 who evidenced the greatest improvements in their resilience score during the time of the intervention.

That resilience reaches its highest score at week 8 could suggest that participants need to cover all content of the 8 week secularised package to gain the most benefit to their resilience. The follow up resilience scores remain elevated in comparison to the baseline scores, which indicate that the improvements in resilience remain after the course is finished and for at least a further 3 months. Participants who completed the questionnaires at the post 3-month point further support this finding. Despite some participant's reporting the difficulty in maintaining their psychological resilience participants report feeling more resilient than when the intervention started.

As the design of the Connor Davidson scale doesn't categorise the scores into sub categories of resilience, it was not possible to conclude from the quantitative data what impact the mindfulness intervention had on different aspects of resilience i.e. the affective, cognitive and self-regulatory domains. However, it is argued that the qualitative data and emerging sub-themes add support to the idea that participants experienced improvement in all 3 domains as a result of the intervention, which are all linked to resilience. However, to become resilient one

must develop skills, qualities and behaviours that can enable one to self-regulate behaviour. Participants richly describe a perception of self-improvement as a result of the intervention. Comments' referring to a sense of greater awareness of how one think and feels; and greater knowledge of why one thinks and feels the way they do was apparent. Both these constructs are known to be important aspects in self-regulatory behaviour and participant's make the connection that both a greater self-awareness and self-knowledge has helped one to reframe their resulting behaviour.

In going back to the definition of resilience offered by Ayala & Manzano (2014, p.127) and adopted in the current study, which views resilience as "the result of an interaction between entrepreneurs and their environment. It is a dynamic and evolving process through which entrepreneurs acquire the knowledge, abilities and skills to help them face the uncertain future with a positive attitude, with creativity and optimism, and by relying on their own resources", participant 15 is a good case in point.

**Case Assessment: Participant (ID) 15.** Participant 15 was found to have the largest improvement in resilience between the start and finish of the study with their resilience score improving by 28 points on the Connor Davidson. The overall mean improvement score was 5.39 (N = 18, Std = 10.33). This represented the biggest improvement in resilience score by a noticeable margin, the second largest improvement in another participant being an increase in score of 15. Between baseline and week 4 he improved by 19 points (largest improvement, second largest 15) while the mean change was a decrease of 1.5 points (N = 18, Std = 12.94). From week 4 to week 8 his score decreased by 2 points while the mean score was an improvement of 7.44 (N = 18, Std = 10.09). From Week 8 to three month follow up he improved by 11 points (largest improvement, second largest = 6) while the mean was to decrease by 0.5 points (N = 18, Std = 6.15). These results are especially important, as Participant 15 is the only participant in the study to undergo a “*life altering event*” at Week 1 as described in the method chapter. The scores evidenced for Participant 15 resonates with Fredrickson’s (1998) broaden and build theory and Pidgeon’s (2014) view that over time with increased awareness (self-awareness) of events and fewer harsh self-judgements (self-knowledge) developed through mindfulness, that people gradually increase their ability to respond more skilfully and adaptively to stressful events.

The evidence put forward from both the quantitative and qualitative data is promising in terms of the potential role of mindfulness interventions in developing resilience in entrepreneurs. Specifically, this study presents empirical evidence that helps to better understand the construct of both mindfulness and resilience in the context of entrepreneurs. The notion that all 3 domains of resilience can be improved as a result of improved self-awareness and self-knowledge is a clear contribution in terms of establishing the conceptual bridge between both mindfulness and resilience. These findings highlight the importance of training programmes for entrepreneurs which emphasise the development of the self and designed in such a way as to develop all 3 domains of resilience.

## *Mindfulness*

The quantitative results supported the hypothesis that mindfulness would improve in response to the intervention and this was further supported by the data provided within the qualitative findings. The main effect scores on the Five Facet Mindfulness Questionnaire (FFMQ) indicating that scores improved over time supports other studies that demonstrate improvements in mindfulness as a result of mindfulness training (e.g. Sharma et al., 2014; Foureur et al., 2013; Holzel et al., 2011; Carmody & Baer, 2008). Participant comments refer to a sense of being more mindful and having developed greater mindfulness. Participants give rich examples of aspects of mindfulness that they attribute to having engaged with the mindfulness intervention. These statements support the view by Rerup (2005, p. 232), who argues that for entrepreneurs, the quality of attention they bring to important decisions is more important than the experience they possess. This is the approach advocated by Kabat-Zinn and the approach adopted by the mindfulness trainer who conducted the intervention in the current study. If one accepts that resilience of the entrepreneur changes as a result of the quality of attention they bring then it is fair to assume that improvements in mindfulness may have been very beneficial in developing the individual's resilience.

The ethos and main tenants of Weick and Sutcliffe's (2007) mindful processes concept were not weaved through the 8-week package in a direct way. However, it is put forward that the principle of any mindfulness programme which focuses on developing mindfulness and mindful learning will enable participants operating in such environments to develop such a mindfulness infrastructure through commitment to the practice. One would argue that as one becomes more mindful they would invoke such processes, which will minimise the damage produced by unexpected events and produces reliable performance making one more resilient. Participants richly described aspects of their mindfulness practice, which could be attributed to both mindful learning (Langer, 1997) and mindfulness processes (Weick & Sutcliffe, 2007).

Average mindfulness scores at Week 1 were lower than reported in other studies for a highly educated population (Baer et al.(2009); Hanley et al. (2017) but in line with what you would expect to see in non-meditators (Lutz et al., 2016; Baer et

al., 2009). The current study showed a similar pattern to other studies in that the lowest scoring facet was that of non-reacting. As the group in the current study were non-meditators and research has demonstrated that long-term meditators score significantly higher on this facet than non-meditators this is hardly surprising (Lutz et al., 2016; Baer et al., 2009).

Overall, the improvements in mindfulness were as expected. The findings suggest that if an intervention is designed and delivered to introduce the individual to Langer's concept of mindful learning and Weick's concept of mindful processes, which ultimately improves mindfulness then scores will improve. Participants talked in detail about aspects of mindful learning and mindful processes, which they perceive have developed from participation in the intervention. The eight-week content was designed in a way to incorporate both, with week 1-4 emphasising mindful learning and week 4-8 much more centred around the development of processes so it's not surprising that this appears to have had a direct impact. Participants describe themselves becoming more mindful as a result of this learning experience and skills building.

The author was interested in whether the sub-scales of mindfulness would all improve in response to a mindfulness intervention. The FFMQ is commonly operationalized by the tendency 1) to observe internal and external experiences 2) describe and differentiate emotional experiences 3) act with awareness 4) be nonreactive to distressing thoughts and feelings and 5) take a non-evaluative stance towards ones inner experience (Baer, Smith, Hopkins, Knetemeyer and Toney, 2006). Examination of the FFMQ at the facet level appears to suggest that these five facets could be arranged to reflect the 2 broad self-referential domains identified by Vago & Silbersweig (2012): 1) Self-awareness facets (observing and describing and 2) Self-regulation facets (acting with awareness, non-reacting and non-judging).

The quantitative results partially support the hypothesis that all sub-scales of mindfulness would improve in that 4 out of 5 facets improved over time at a statistically significant level with a medium to large effect size (the describe sub-scale did not alter at a significant level). The qualitative data however provides

rich examples where participants refer to all 5 facets including the describe facet: where one can describe and differentiate emotional experiences. Scores were considerably lower for observing, acting with awareness, non-judging and non-reacting in comparison to the results gained in Hanley's (2017) study with University students and in the study by Baer et al. (2003). The pattern of the scores was similar in that the self-awareness facets scored higher than the self-regulation facets. The baseline score for describing was higher than average thus may account for why there wasn't much improvement throughout the study. The facet that improved the most throughout the study was observing, a self-awareness facet. This does add support to the view that with cultivating awareness of the self, being central to many mindfulness practices (Nhat Hanh, 1999) that it follows that improved self-awareness will be one of the key benefits of mindfulness. Participants in the study express their view that they have become more aware of the self (self-awareness) and developed their ability to observe both internal and external experiences (observe facet). They also clearly link this improved self-awareness to a subsequent ability to better understand themselves (self-knowledge).

From the participant comments it is fair to theorise that this improvement in self-awareness; which serves to develop the minimal self, subsequently improves self-knowledge (narrative self) and that improvements in both the narrative and minimal self may develop or sharpen self-concept clarity (Vago & Silbersweg, 2012). Self-concept clarity is associated with psychological wellbeing (Hanley, 2017) and is helpful to the idea that improvements in both self-awareness and self-knowledge will ultimately help to develop one's resilience. Findings suggest that participants have developed both self-awareness, a well-cited concept that is a central tenant of mindfulness (Vago & Silbersweig, 2012) and self-knowledge critical to self-concept clarity (Hanley et al., 2017), which the author argues is fundamental to the development of one's resilience. The benefits participants found due to less rumination and habitual worrying supports the findings of Thomas, Ainkoff and Glass, 2011 who found that people who avoid rumination were more resilient following trauma and Verplanken and Fisher, 2014; who found that more mindful people were less prone to rumination and were more resilient. This ability known as decentering (Segal et al., 2002), allows people to

experience fairly aversive thoughts and emotions as temporary events rather than experiences that require a response or an explanation. This is a valuable skill for entrepreneurs to learn as they regularly face adversity and challenging conditions within which to maintain function.

The author suggests that entrepreneurs who are more self-aware will have the ability to perceive others more accurately. This will help them to align their team's strengths to the business. Being an acute observer of others strengths and weaknesses and being open minded and objective about different types of people on the team will also help to further self-awareness and deepen an appreciation for the variety inherent in patterns of success. The author argues that a greater self-awareness will help the entrepreneur in their decision-making through the better understanding of oneself and the ability to counterforce out-of-control emotions. Having mastery over ones emotions will help the entrepreneur to know when to push for power and attainment and when to pull back and use self-control to get what they want (Grichnik, 2010). Greater self-awareness can bring a sense of certainty in tough decision-making situations and enable one to make quicker and more efficient assessments in tough moments. The more in tune one can become with what they are thinking and feeling, the more aware one becomes and this makes it easier to recognise unhelpful thought patterns and emotions and the impact they may have e.g. positive or negative. Developing this awareness can help the entrepreneur to consider why he/she has these thoughts and feelings, if they are a true representation and why they are potentially unhelpful. This may help the person to become more resilient to negative thought processes and access new ways of thinking and feeling which improves their ability to self-regulate their behaviour.

We already know that people who have positive psychological wellbeing are more likely to be resilient. Simply put, if someone is mindfully aware of what they feel and why they think it (Lutz, 2016) then they are more likely to regulate their own behaviour. The affective, cognitive and self-regulatory are essential domains that need to be nurtured in the development of resilience.

Case participant 15 increased most in the observing facet linked to self-awareness and the non-reacting and non-judging facet closely linked with worry. This does add support to the view that mindfulness improves as a result of improved self-awareness' and subsequently improves resilience and psychological wellbeing as a result.

From the results Hypothesis 2b was not supported (see **Page 157**) in that there was no correlation between reported minutes practiced at home and end mindfulness score. This is not in line with the findings of Carmody and Baer (2008) who found that self-reported mindfulness increases in line with the amount of formal home mindfulness practice participants report doing. Participant's views however, align with Carmody and Bear in that they feel that mindfulness practice over and above the formal intervention impacts on their mindfulness and regard it is an important habit to maintain. Although the analysis of the quantitative data in relation to practice in the current study did not confirm the benefit of practice out with the formal training sessions, participant comments add support to the view held by many theorists (Carmody & Baer, 2009, Kabat-Zinn, 2003) who have demonstrated the link between practice and improved mindfulness and who have advocated its importance as an additional element in any mindfulness intervention. The qualitative findings illustrate the importance of habit forming in the development of resilience, which includes informal practice. In this study developing new habits in relation to mindfulness practice and acting mindfully has contributed to improvements in both mindfulness and resilience. A study from University College London (UCL) in 2009 tracked 96 people who were trying to establish a new habit. According to the study results, 66 days was the average time it took to turn a new behaviour into a bona-fide habit. The intervention was 56 days with a follow up at 140 days, with participant 13 citing habit formation at 42 days. To promote habit formation, the intervention focused on strategies to initiate a new behaviour, support context-dependent repetition of this behaviour, and facilitate the development of automaticity. The practitioner discussed techniques for disrupting existing unwanted habits, which relate to restructuring the personal environment and enabling alternative responses to situational cues as advocated by Vago (2012).

References by participants linking the habit of regular mindfulness practice to a greater sense of well-being appear also to corroborate other studies in that increases in mindfulness appear to mediate increases in wellbeing (Carmody & Baer, 2008). The dropout rates for MBSR interventions are typically less than 20% (Shapiro, Schwartz & Bonner, 1998) and in this study it was 5%. Participants provided a strong viewpoint that all types of mindfulness helped them to improve, thus the improvements in scores may be as a result of both the intervention itself and the home practice despite the quantitative results supporting this. Case participant 15 had the greatest overall improvement but was in the bottom third of the sample for the amount of home practice recorded.

It is recommended in future research that a clearer definition of what mindfulness practice is and the quality of such practice be clearly considered. The fact that the sample of entrepreneurs studied by their very nature; were highly competitive did make the researcher question the reliability of the self-reporting of volume and quality of mindfulness practice undertaken.

The evidence put forward from both the quantitative and qualitative data confirmed that the mindfulness intervention developed what it aims to do i.e. develop mindfulness in entrepreneurs. The perceived improvements amongst participants relating to the development of the self; i.e. self-awareness and self-knowledge and that they feel more resilient as a result adds to the view that the main aim of mindfulness is around development of the self (Carlson, 2013). There is a paucity of research on the role of self-knowledge in the development of both mindfulness and resilience and this study provides preliminary support for the relationship between both self-awareness and self-knowledge and its role in resilience. Despite the study findings failing to support the efficacy of informal practice it has clear implications for the development of fidelity of mindfulness programmes which incorporate home practice. The qualitative data demonstrated that western secularised mindfulness can retain the ethical dimension of the practice and indeed deliver on its transformative potential. This is perhaps the most significant contribution to existing mindfulness literature and as such will be discussed in length in its own section within this chapter.

### **6.3 The relationship between resilience, mindfulness and psychological well-being.**

Psychological well-being was looked at as secondary dependent variables to include total mood state, depression, anxiety, confusion, anger, perceived stress and satisfaction with life, a rather a short summary of the results will be offered. The quantitative results largely confirmed the hypothesis that there is a strong relationship between resilience, mindfulness and psychological well-being and the qualitative findings provided extra data in agreement of the quantitative results. The 8- week mindfulness intervention has led to improvements in resilience, mindfulness and psychological well-being measures to include both mood and satisfaction with life. Despite the quantitative data failing to support the hypothesis that stress would improve as a result of the intervention, participant's referenced feeling less stressed as a result of becoming more mindful and perceive a greater sense of well-being as a result. This study supports recent research studies that found resilience has a mediating effect on mindfulness exerting its benefits on psychological wellbeing (Bajaj & Pande, 2016).

#### *Stress*

Although the quantitative results did not suggest any change in perceived stress during the intervention time period, the qualitative findings suggest that there was a change with participants perceiving themselves to be less stressed even at the 3 month follow up point. Kabat-Zinn's MBSR design was specifically designed as a means of coping with stress and the mediating effect of mindfulness on positive mental health is well cited (Baer et al., 2012; Bao et al. 2015). The mindfulness intervention in the current study appears to have had a benefit in the management of perceived stress. What is interesting is that despite case participant 15 having suffered major life event, and reporting lower life satisfaction and higher stress levels they have developed the ability to cope better than others during the intervention period and beyond. Participant 15's comments supports the view that to become more resilient you must experience set back and adversity to put what you have learnt to practice (Bullough & Renko, 2013).

### *Satisfaction with life*

Both the quantitative results and the qualitative findings are suggestive that satisfaction with life has improved as a result of completing the mindfulness intervention. Satisfaction with life scores significantly improved over time at a significant level and participants refer to feeling happier and more content. This is in line with other studies who found that improvements in mindfulness exert a significant indirect effect on life satisfaction and psychological wellbeing (Bajaj & Pande, 2016, Gomb et al., 2011; Ryff, 1989) through the mediating effect of resilience. The qualitative data makes strong reference to the positive improvement in relationships both in work and life and it is therefore argued that this too may have had an impact on the perception of one's overall satisfaction with life.

### *Mood*

Average resilience scores at week 1 of the study were not in line with the generalised US population scores in the original validation study of the Connor Davidson scale (2003). Scores were far above the scores reported for a specific population with generalised anxiety or just above that seen with psychiatric outpatients. As psychological wellbeing is linked to resilience (Hanley et al., 2017) these relatively low baseline resilience scores may well be in part due to the general levels of distress, emotional disturbance and subjective wellbeing recorded for participants at the beginning of the intervention. The mean levels of mood disturbance on the Profile of Moods States scale (McNair, Droppleman & Lorr, 1971) evident would be classified as moving into an elevated score in the original clinical sample, which highlights more concerns than are typical. From the four factors obtained for the total mood score (Anger-Hostility, Confusion-Bewilderment, Depression-Dejection, and Tension-Anxiety), both the Confusion-Bewilderment scale and the Tension-Anxiety scale were at the very high end of average moving towards an elevated score. Confusion and bewilderment are mood states that are connected to a disruption of awareness and lack of cognitive or behavioural clarity leading to confusion.

Moods provide a great deal of information, telling us about one's internal state and associated assessment of whether he/she has the resources available to cope with current threats and challenges (Larsen, 2000; Thayer, 1996). These core psychological challenges present in the sample are consistent with the findings of other studies who highlight that this population i.e. entrepreneurs are more susceptible to suffering from mental health issues such as worry, anxiety and depression (Freeman, 2015; Bruder, 2014). Initial analysis of the group's profile of mood states indicated that they could benefit from improvements in both mindfulness and resilience by way of participating in the mindfulness intervention. Participants certainly talked about having felt much less positive and describe engaging in more frequent bouts of worrying pre intervention.

Total mood scores reduced over time, and was clearly referred to in participants perceived changes as a result of the intervention when they describe having more frequent positive mood states than negative ones. These findings are concurrent with documented benefits of mindfulness (Brown & Ryan's, 2003) and its impact on affect, to include the ability to manage both positive and negative emotions (Pidgeon et al., 2014; Khoury et al., 2013). Participants described in detail improvements in emotion regulation to include an improved balance between negative and positive emotion, increased positive thinking and resulting well-being. The total mood score moved from an elevated mean score to a normal score within eight weeks. The most noticeable change in mood scores was for tension-anxiety with a large effect size evident. As a negative correlation to anxiety is cited as a key benefit to be derived from participation in an MBSR/MBCT programmes (Brown et al., 2007; Glomb et al., 2011; Fisak & Lehe's, 2012) this was welcomed. All other mood scores showed a medium effect with the only mood score to not achieve a significant affect in terms of improvement was that for depression-dejection.

Although the depression-dejection score increased over time one could argue that the duration of the intervention wasn't long enough to gain the full benefit to one's depression/dejection related emotions which have been shown to take a longer time to develop hence the 8-week duration of Kabat Zinn' package (KabatZinn, 2003).

A study investigating the relationship between the five facets of mindfulness and worry in a non-clinical sample found that mindfulness predicted 32% of the variance in worry, and three of the five facets identified by the FFMQ were found to be associated with worry (Fisak & Lehe, 2012). In particular, non-reactivity, non-judging, and acting with awareness were associated with worry, and were the 3 lowest mean scores in the current study at week 1. Non-reactivity and non-judging were the most robust predictors of worry and again in this study were the lowest scores from the 5 facets measured. From the scores gained in this study it is argued that the elevated mood disturbance scores could have been as a result of worry within the group. The elevated tension-anxiety and confusion-bewilderment domains of the total mood disturbance is typically as a result of worry thus both test results support the view that the participants had a significant level of worry at the start of the intervention.

As an interpretation of the association between non-judging and non-reactivity, it is noteworthy that these facets involve an accepting, non-responsive, and non-evaluative perspective in relation to internal experiences, including both cognitive and emotional experiences. This perspective may transfer to worry-related content, as individuals who tend to exhibit high levels of non-judging and non-reactivity may tend to notice worry without feeling compelled to respond and may be less likely to attempt to suppress worry. Further, they may be less likely to experience autonomic arousal in response to worry, appraise worry as harmful, and engage in negative self-appraisal when worry occurs. Finally, it is noteworthy that these findings are generally consistent with the Roemer et al. (2009) study, in which acceptance, was found to be associated with general anxiety disorder (GAD) symptoms.

At week 1 case participant 15 reported a very low score in comparison to the mean on the non-judging facet which might account for his elevated mood disturbance brought on by the major life event he had just suffered.

Participant 15 showed the largest improvement through the course of the study on the five facets of mindfulness questionnaire, with scores well above the mean

change. Between Baseline and week 4 their score demonstrated the second largest improvement, from Week 4 to Week 8 his score decreased slightly and finally, from Week 8 to 3 month follow up he demonstrated the Largest overall improvement. These findings give further evidence for the importance of the development of all facets of mindfulness in the development of mindfulness.

### **Case Assessment: Participant 15**

This is a very interesting case in point. As discussed earlier participant 15 was the only participant to suffer a major life event immediately before, during the intervention or in the follow up period. This life event occurred the Week before the start date of the first session which put his job and financial security at risk.

This appears to have had a large impact on the individual in that his resilience was the lowest in the group and some 23 points below the mean for the group. This was the same pattern for mindfulness with him being some 18 points below the mean. It is hardly surprising that with perceived stress impacting on one's resilience, that Participant 15 had the highest perceived stress score alongside the lowest resilience score at baseline. The lower resilience score seems to have also had an impact on its mediating effect on psychological wellbeing. Participant 15's life satisfaction score was very low, being substantially lower than anyone else in the group and indeed a cause for concern. Mood disturbance was highly elevated and the highest in the group. All aspects of mood stood out to be well above the mean for all with low scores positively correlated and high scores negatively correlated. The areas which were particularly elevated and cause for concern were the depression-dejection, fatigue-inertia, tension-anxiety and vigour-activity domains.

Following the intervention participant 15 had the greatest increase in resilience resulting in moving from having the lowest resilience score at week 1 to being in line with the mean at the 3 month FU. The groups mean resilience score increased by 5 points where participant 15 increased by 27 points. For mindfulness, the groups mean score increased by 16 points where participant 15 increased by 32 points. In terms of perceived stress, the mean score was constant throughout the study whereas participant reported a substantial reduction in stress (change of 8 points) achieving a score lower than the mean for stress.

Participant 15 had double the decrease in mood disturbance (change of 20 versus mean with a reduction in 10). The greatest change in mood was for

depression-dejection (mean difference was 5 points whereas participant 15 reported difference was 21 points) and tension-anxiety (mean difference was 5 points whereas participant 15 reported difference was 21 points). Both anxiety and depression are two of the most cited benefits to be derived from mindfulness training.

The scores for participant 15 appear to suggest that despite no significant change in life satisfaction that an improvement in mindfulness above the mean resulted in higher resilience gains and that this increased resilience had a mediating effect on psychological wellbeing. Participant 15's reduction in both perceived stress and mood disturbance may be in part due to the person feeling more resilient.

The results of Participant 15 add weight to the positive mental health benefits to be derived from engaging in mindfulness training (Gu et al., 2015) and does help to make a case for mindfulness training with entrepreneurs. Overall improvements in mood and stress level demonstrate the improvements in the affective and cognitive domains and the improvements in resilience demonstrate the self-regulatory capacity to cope with adversity, learn from experience and engage in cognitive transformation.

#### **6.4 Developing the ethical dimension in secular mindfulness programmes**

The author has made a case that a westernised MBSR/MBCT mindfulness programme has a role to play in developing resilience, mindfulness and psychological well-being in entrepreneurs and in turn this may help them to develop methods of coping with the demands of the environment they operate within. However, it could be argued that using mindfulness as an approach where the focus is purely on the individual and outcomes opens up the well documented debate about the use of mindfulness approaches in neo-capitalist structures and businesses.

The potential limitations of westernised mindfulness programmes i.e. deracination, instrumentalization and secularisation, outlined earlier are indeed warranted concerns. The author aligns with Kabat-Zinn in that the corporate world would not be so open to delivering or attending such courses if there was no potential improvement in their productivity as a result. In this regard Kabat-Zinn was insightful in trying to resolve this potential barrier to acceptance. However, that been said it is important that mindfulness programmes should aim to avoid resorting to a reductionised sanitised approach reminiscent of the McMindfulness model outlined by Ritzer (2000). The author agrees that developing a sales book for entrepreneurs and claiming it to be true to the mindfulness doctrine just because you put “mindful sales for entrepreneurs” on the title is a grotesque example of how easy it to get it wrong.

It is somewhat not surprising therefore, that there is tension about how best mindfulness approaches can work (if at all) in neo capitalist structures and businesses when on the surface they seem to come from different perspectives ideologically.

#### **6.4.1 Instrumentalism versus humanism**

On one hand we have proponents of mindfulness that firmly advocate MBSR/MBCT mindfulness programmes from the viewpoint that they can increase profit and productivity (e.g. Google & Amazon) and put the responsibility in the hands of the individual (Amaranatho, 2015) whilst on the other hand you have Buddhist practitioners who firmly believe that mindfulness should not be modified from its Buddhist roots in any shape or sense and stress the point that central to mindfulness is the reduction of collective suffering (Purser & Ng, 2015, Fisher, 2010). In interpreting the literature, it is evident that both sides engage with the concept of mindfulness largely in ignorance to each other and never the twine shall meet.

Corporate mindfulness is criticised for giving little attention to the potential of mindfulness in developing the ethical dimension and now functioning to support the new “hegemonic ideology of global capitalism” (Zizek, 2001, p.1). It has been argued that modern mindfulness is often presented as a type of concentration technique that at times is used to develop wisdom. Buddhist mindfulness scholars argue that this approach is still only one component or two at best of the overall Buddhist therapeutic approach known as the Three Educations (Fischer, 2010) and that the moral ethical development is largely ignored. As a result, these critics are advocating a reintroduction of spirituality-orientated principles to be integrated with mindfulness training (Hyland, 2015). However, these scholars are also criticised for their tendency to underestimate the difficulty in promoting Buddhist mindfulness in westernised contexts and the inherent barriers that exist to get essential buy in.

But does it really need to be one or the other? Can modern mindfulness programmes taught in a secularised way satisfy both parties in this dichotomous debate? The author believes that the current debate has been over-simplified in its portrayal in that little research has been done on the appraisal of secularised mindfulness programmes and whether secular mindfulness can realise its transformative potential in fostering the development of all three educations (Yi, 2017) i.e. wisdom (wisdom cultivation), compassion (ethical development) and awareness (concentration development) in the world. More work is needed to unravel the tensions in search of a more balanced and pragmatic view where we develop a deeper understanding of the relationship between the Buddhist roots of mindfulness and secularised mindfulness teaching.

Hyland (2017, p.343) recognises this tension and “although the process of ethical development within mindfulness practice can never be based on a simplistic input/output model, the centrality of the ethical dimension is clearly paramount.” Schoeberlien and Sheth (2009) as cited in (Hyland, 2017, p.343) argue that “mindfulness and education are beautifully interwoven but the specifically educational nature of MBIs needs to be foregrounded at all times if practices are to remain true to the ethical foundations outlined by Kabat-Zinn and committed mindfulness practitioners.

The findings from this study suggest that it is possible to deliver an MBSR/MBCT package as Kabat-Zinn intended, which delivers on goals orientated objectives whilst developing the ethical dimension at the same time. Salzberg and Goldstein (2001) as cited in (Hyland, 2017, 344) explain how the therapeutic function of education is connected with the contemplative tradition in explaining that the “function of meditation is to shine the light on awareness on our thinking”. There were extremely rich examples within the qualitative data that clearly demonstrated aspects of development in all three educations inherent in the Buddhist approach to mindfulness. Participants described dramatic improvements in awareness (concentration development) as seen in most modern mindfulness programmes. However, the entrepreneur’s in the current study also felt that they had indeed had a dramatic shift in their thinking (wisdom cultivation) and changed their value-based behaviours (ethical development) as a result. Hyland (2015) argues that McMindfulness practices are often criticised for failing to satisfy even the most basic of educational requirements. He moves on to claim that

too often mindfulness interventions do not connect with the broad transformation of perspectives, which allows for the fostering of wholesome thoughts and feelings and the reduction of harmful rumination and avoidance.

In the current study, participant’s comments make a clear case that there has been an educational benefit and indeed they richly describe a process of transformation where their assumptions, feelings, beliefs and views have been subjected to the action and process of deep thought. Participant 6 summarises succinctly how less rumination and challenging of values now pervades their practice since completing the intervention:

Before the course I used to chew over things and get a bit stuck in the mud. Since attending the course I now think with more clarity and have re-prioritised what is important to me as a result.

The findings in this study suggest that entrepreneurs’ can and should benefit from programmes designed to develop their moral compass and ethical foundation from which they go about their business. Moreover

even with the most basic minimum requirements of transformative learning connected with self-direction and the critical analysis of our values and assumptions, are distorted by and submerged beneath the dominance of consumerist and market-driven objectives. Thus one can argue that there is an important role of mindfulness practices in transformative education (Hyland, 2017, p.344).

There is a growing body of work advocating mindfulness practice which leads naturally to the moral principles underpinning the noble 8-fold path which is instrumental in fostering a firm of virtue ethics (Gowans, 2015).

Workplace mindfulness can often fall short, concerned only with specific strategic outcomes at the expense of the development of autonomous critical thinking about knowledge, values, and culture in all aspects of personal and social life (Cranton, 2006) i.e. improving profit and becoming more productive. This was indeed observed within this study where participants specifically commented on improved productivity, citing that they had become more productive, producing greater outputs and engaging in higher quality work.

The Buddhist critic would argue that this is not in the spirit of the practice. Mindfulness has been referred to as a technique to help one slow down, become non-goal orientated and is often seen as more concerned about process rather than outcome. This at first glance could be seen to be polar opposite to the benefits the participants describe above, to the environment of the entrepreneur and potentially counter-productive to business. This goes some way to explain the growing backlash against organisations that are seeking to use mindfulness practices to improve not only personal wellbeing but also workplace productivity, and dare we say its profits too. However, their comments did not stop at observations based on a simplistic input/output model. Participants described in detail experiencing profound change in terms of their ethical development and perceived to have experienced benefits relating to a developed sense of self. As Thich Nhat Hanh, the Vietnamese monk who spent his life bringing the practice to the West said:

as long as business leaders practice “true” mindfulness, it’s OK if they also enjoy the benefits of being more effective at work and helping the business perform better. Simply practicing mindfulness, he said, will fundamentally

change their perspective on life, opening their hearts, cultivating compassion, and naturally inspiring them to reduce suffering in themselves and others. (Thich Nhat Hanh as cited in Gelles, 2015, p. 227)

If the less than favourable depictions and representations of entrepreneurs as “economic man” void of any moral value base have even an element of evidence to support this perception, then there is a reasoned justification for the delivery of mindfulness based programmes that are focused on more than merely goals based objectives. Entrepreneurs are more than mechanistic economic actors; they are human beings with emotions who often struggle with juggling the demands of the entrepreneurial journey. The quantitative data illustrated how this often plays out in their work and in general life. With stress can come resulting behaviour, which can at times be perceived to be exploitative and/or un-ethical. The idea that entrepreneurs could be exposed to a training programme that can also develop the humanistic dimension with a focus on ethics should be embraced. The argument that mindfulness programmes are too focused on the individual than that of the collective is not to be ignored but the studies qualitative findings demonstrate that in developing the individual first then they are more likely to then consider others. You can’t possibly be compassionate and kind to others if you haven’t even first developed it in yourself. Participant comments clearly show that the entrepreneurs were very expressive in terms of the positive changes they had observed in not only how they were with themselves but how they were with others. Reference to both work and life generally also demonstrated the additional benefit that mindfulness can bring in that the benefits reached beyond the workplace to their home life blurring the boundaries between the two (See **5.3.3** in Chapter 5). Participant’s express their satisfaction in their perception that they have developed stronger relationships and re-connected with previously failed relationships as a result of mindfulness having reduced existing and perceived barriers.

Improvements in positive thinking, mood, and overall well-being as cited by participants a result of perceived development of both mindfulness and resilience give further support for the use of mindfulness practice for entrepreneurs. The development of psychological well-being is extremely valuable to the entrepreneur and the context by which they operate in and may offer protective

benefits to entrepreneurs susceptible to mental health issues (Freeman, 2015). As Batchelor (2015) as cited in Hyland (2017, p.345) in citing the Kalama Sutta states “the transformation involved in the practice of the dharma is as much affective as it is cognitive, directed toward enabling us to dwell pervading the entire world with a mind imbued with loving kindness, compassion, altruistic joy and equanimity”.

Participants in this study describe improvements in their ability to handle emotions (affective domain), and subsequent improvement in their rationalisation of these emotions (cognitive domain) as a result of greater self-awareness and self-knowledge. They were clear in their perception that they were more able to regulate their resulting behaviour, expressing in rich detail a new found appreciation for values-based behaviours towards themselves and others. Participant’s comments around a renewed sense of accountability for their own behaviour and compassion & respect for themselves and others demonstrated that the intervention indeed succeeded in retaining the ethical foundations inherent in the Buddhist dimension of the practice. Participants refer to the notion that when one has the realisation that they are indeed responsible for their thoughts, feelings and actions that this in itself can be quite liberating. The examples of how mindfulness has aided the group in developing desirable work and life behaviours through becoming more resilient has implications for how people perceive a resilient entrepreneur and may have strong implications for practice.

#### **6.4.2 The value of ACT**

There is no doubt that Kabat Zinn’s MBSR protocol facilitates individuals to become more aware of one’s thoughts and feelings. However, as the author made a conscious decision to include the hexaflex model synonymous with ACT to encourage the entrepreneur to consider values not just goals, the ethical dimension may have surfaced in a more direct way as a result. It is also felt that the skill of the practitioner in staying true to the Buddhist roots of the practice has

great potential to impact on the outcomes of any intervention. The moral foundations of mindfulness lead naturally to a progression from the self-regarding to other-regarding virtues as greed, hatred, and delusion are gradually replaced by generosity, kindness and understanding about the nature of the world and the human condition. It is therefore fair to theorise that combining ACT within the MBCT intervention may have helped the learning to be more explicit and may have aided participants to more readily shift their thoughts from outcomes to values which in turn may help to further develop self-awareness (and awareness of the self as the present experience unfolds) and self-knowledge (an understanding of how they and others see them). In considering ones values it can result in a shift from a preoccupation with the self but to a focus on how they treat others. This was evident in participant comments and can help to explain why the perceived benefits of improved mindfulness has helped one to develop their relationships in both their home and work life and subsequent well-being. After all, “mindfulness practice is designed to promote well-being in ourselves and others or – in the language of the Buddhist noble truths – to work toward the reduction of the suffering of all living beings” (Hyland, 2017, p.347). Participant 7 and 11 give rich examples of how the focus has moved from themselves to others as a result of developing their value based judgements and behaviours (See **5.3** in Chapter 5).

The quantitative findings suggest that a secularised mindfulness package can deliver outcomes such as productivity to include output and higher quality work, whilst retaining its intended purpose i.e. the ethical dimension. It is entirely possible to deliver mindfulness without resorting to the potential failings pointed out by its critics. It is fair to surmise that entrepreneurs would be missing out if they did in fact only experience a sanitised watered down version void of the learning to be derived from the three educations. Further research to truly establish the impact of ACT in the design would be needed to confirm these initial insights. The author however accepts that there is a need through education to develop the entrepreneur’s understanding and acceptance as to why the ethical dimension is so important and its relevance to them and their business success.

The qualitative findings suggests that the intervention delivered a mindfulness programme as Kabat-Zinn intended and the practitioner who delivered the content despite adding the goal setting activity, remained true to the roots of mindfulness as opposed to delivering a commercialised, sanitised and whitewashed version of the practice. The findings suggest that what was delivered was a mindfulness intervention which stayed true to its Buddhist routes as opposed to a reductionist sanitised McMindfulness version (Confino, 2014).

## **6.5 The role of mindfulness in entrepreneurship education and training**

The evidence put forward makes a strong case for the role mindfulness can play in entrepreneurship education and training and for carefully planned and executed mindfulness programmes for entrepreneurs as they navigate the entrepreneurial journey.

For entrepreneurs to be successful it is both necessary and sufficient that they develop resilience. Starting a business can be compared to navigating an obstacle course, it's often characterised by a never ending path of obstacles, challenges and potential barriers from start to finish. The struggle may be inevitable but the way an entrepreneur views and frames these events is crucial to whether or not they succeed or become another statistic of business start-up failure. We know survival rate for stat ups is bleak, but often it's the mental tools that entrepreneurs possess that help them last the journey. Resilience is one of these key tools. Entrepreneurs must indeed develop skills for coping, when adversity presents itself, and as we know it happens regularly in the environment they operate within. For entrepreneurs, resilience helps them to rethink and reframe the way they see setbacks, and view them as catalysts for growth and progress rather than see them as threats to be avoided. Facing the future with positivity, optimism and hope is a must for the entrepreneur, without this the entrepreneur faces a future of stress, fear and avoidance. Entrepreneurs who avoid facing their challenges head on are more likely to give up and will not

develop the necessary problem solving skills needed to gain solutions and maintain progress. This effective self-regulatory behaviour cannot be achieved by relying on the training of mechanistic task based skills alone without giving any thought to the entrepreneur's state of mind. If mindfulness improves resilience (as these results suggest) and resilience plays a mediating role in mindfulness exerting its benefits on psychological well-being, then training courses that foster all three is to be encouraged.

The evidence is clear that entrepreneurs are susceptible to mental health issues and often struggle with anxiety, tension and stress (Freeman, 2015). The study findings demonstrate that mindfulness programmes that improve resilience have the ability to improve aspects of psychological well-being that can have a positive effect on the entrepreneur. Educating the entrepreneur to recognise the warning signs of not coping early on could prevent mental health issues from escalating and leading to burn out amongst other things. By entrepreneur's learning to become more self-aware can only be a good thing. When improved self-awareness results in improved self-knowledge, it enables the entrepreneur to question their thinking and resulting behaviour. This may also help the entrepreneur to become a more objective appraiser of their situation learning to know when what they are thinking is worth holding on to and that it is indeed an adequate reflection of their own reality. Learning to read the situation for what is it and see things more clearly can help the entrepreneur to avoid over or under investing in their own plight. Developing the entrepreneurial mind set which fosters positivity, hope and clarity of thought is crucial for success. Building resilience requires making a shift in mindset, realising that setbacks aren't here to stay, and that they are often small compared to the overarching purpose of one's business. Learning from failure is an important characteristic that entrepreneurs must learn and there is much evidence to demonstrate on how failures and the ability to rebound after failure and take risks have formed successful entrepreneurs (Gratzer, 2001).

### *The importance of values based behaviour*

When entrepreneurs are under pressure it is often easy to become more and more self-critical and to catastrophize their position. With a more developed self-awareness and self-knowledge they develop their ability to see themselves as they really are. Through mindfulness entrepreneurs can develop their ability to reframe their thoughts and make clearer judgements in a calmer and more rational way. A programme incorporating both values-based goals and goals based outcomes may indeed help the entrepreneur to reappraise their values of what is important to them and the role of others in their success. It may even help them to improve work life balance, which is often linked to burnout in this group. This was evident in the findings where all participants refer to improvements in relationships even referring to reconnecting with previously failed relationships. The author argues for the further development of mindfulness for entrepreneurs programmes that ensure a balanced blend between instrumental ends and humanistic qualities.

### *Benefits of being a resilient entrepreneur*

There are clear benefits to the entrepreneur from becoming resilient. Entrepreneurs cannot allow others to say no. They must hold a deep belief that nothing is insurmountable. There is always more than one way to get to the same destination and entrepreneurs must find it and also keep looking each time they face a no. Resilience is about being resourceful enough to thrive, they need to make the choice to keep going and do the insurmountable. Once the entrepreneur sees that they can do what they thought they couldn't, confidence ensues and they are more prepared for the new challenges they are certain to face. Resilience develops a certain stubbornness in the entrepreneur to do what they set out to do, regardless of adversity.

Change and challenge are central and fundamental to the development of the entrepreneur. How the entrepreneur handles change is the marker of their ability to adapt and move forward. Resilient entrepreneurs are able to flex and adapt in response to the changes that come their way and they are able to course correct

as and when it is needed. They are able to face challenges, examine the road ahead and make small adjustments as necessary to ensure they are open to change. Resilient entrepreneurs are able to keep moving, not merely survive. They stay positive and hopeful in their pursuits using their deep sense of conviction and commitment to taking the next step towards their goal. The more resilient the entrepreneur becomes the more self-aware the entrepreneur becomes and the more they are able to uncover, acknowledge and properly take responsibility for their blind spots. When the entrepreneur develops their self-knowledge as a result of being more resilient they grow the ability to challenge old beliefs and analyse false assumptions they hold. Behaviour as a result of knowing who you are (self-awareness) and why you think and feel the way you do (self-knowledge) is more easily and effectively regulated and critical to the entrepreneur in pursuing the entrepreneurship journey with sufficient resilience.

## **6.6 Summary of Chapter**

The chapter presented a case for the role of mindfulness in the development of resilience. Both the quantitative and qualitative data supported the main hypotheses that both resilience and mindfulness would improve as a result of mindfulness training. The data presented would also suggest that improved resilience played a mediating role in mindfulness exerting its benefits on psychological wellbeing (mood, and satisfaction with life) and that there is a strong relationship between them. The qualitative data demonstrated that secularised mindfulness programmes can develop values-based behaviours as long as the intervention stays true to the three educations inherent in the Buddhist routes of the practice. The author argues that mindfulness training and the development of mindfulness has an important role to play in entrepreneurship, education and training.

The author has put forward the case that the mindfulness intervention promoted awareness of the “self” by encouraging engagement with the present moment, revealing greater clarity by relaxing biased habitual schemas as highlighted by

Vago & Silbersweig (2012) in their study. The author posits that as one develops greater self-awareness in the present (experiential self) whilst developing self-knowledge (narrative self) that a clearer self-reference emerged resulting in self-concept clarity. Lutz et al.'s (2106) depiction of this when he refers to the ability to **feel** through mindful self-awareness as well as **think** clearly through cognitive self-reflection (Lutz et al., 2016) is an important point in this study. Although theorists of different aspects of the self-distinguish a present-moment experiential self from cognitive, self-defining functions (Damasio, 1999; Northoff & Bermpohl, 2004), one would argue that they are both positively altered as a result of mindfulness developing self-concept clarity. Hanley (2017, p.337) stresses this:

Concomitantly, experiencing greater self-concept clarity in the present moment is likely to encourage enhanced self-concept clarity over time, such that moments of self-clarity may accrue into a more enduringly clear, temporally extended narrative self.

Greater self-awareness and self-knowledge plays an important function in self-regulatory behaviour. Specifically, behaviour gives rise to self-concept beliefs and mindful behaviour, marked by awareness and intention, which may result in more consistent behaviours reflecting more consistent information about the self.

In short, "behaviour begets self, and self-dictates behaviour" (Hanley et la, 2017, p.338). This cyclical process develops all three domains of resilience i.e. affective, cognitive and self-regulatory.

Through this intervention, the entrepreneurs in the study have developed mindfulness habits (learning and processes) which has further developed aspects of the self (cognitive, affective and executive) which has improved their resilience. Learning to deal with emotions (both + and -) has helped the entrepreneurs in the group learn skills for coping. Coping is a necessary skill to develop to last the entrepreneurship journey thus to be encouraged. The qualitative findings are suggestive of a change in values and improvement in relationships. Successful entrepreneurs require a strong support network around them thus having people who can encourage and support said activities is also to be promoted.



## **CHAPTER 7                    CONCLUSION AND CONTRIBUTIONS, LIMITATIONS AND FUTURE RESEARCH**

This chapter will provide a brief summary of key findings, related back to the study's hypotheses with a view to confirming the potential role mindfulness training has on the development of resilience in entrepreneurs. The theoretical, methodological and practical contributions the study has made are put forward as well as the study's limitations. Directions for future research are also suggested as a means of this research being replicated and further developed.

This study piloted the effectiveness of an eight-week mindfulness MBSR/MBCT intervention with the primary aim being to explore the role of mindfulness in the development of resilience in entrepreneurs and to extend the previous literature by investigating further the link between the two constructs i.e. mindfulness and resilience. The main hypothesis being that mindfulness training improves resilience in the entrepreneur. Secondary variables with reference to psychological wellbeing were included to further investigate the relationship between mindfulness, resilience and psychological wellbeing.

The present study's main finding was that mindfulness training did improve resilience and aspects of psychological wellbeing (mood and satisfaction with life) with mindfulness being perceived by participants to being instrumental in improving ones resilience. The results supported the study hypotheses in the main and are consistent with other studies (albeit in different contexts) relating to the association between mindfulness and resilience.

The current study highlights the contribution that mindfulness skills building and specifically mindful learning (cognitive) and mindful processes (self-regulatory) make to Kabat-Zinn's moment-to-moment awareness (self-awareness) and the development of resilience. Langer's mindful learning emphasizing cognitive openness and Weick and Sutcliffe's collective mindfulness processes are important in helping the entrepreneur to build on awareness outlined by Kabat Zinn.

There are clear theoretical contributions to the mindfulness, resilience and entrepreneurship literature to be derived from this study. The study also has implications for practice providing further debate on the role of mindfulness in neo capitalist structures and businesses and thus the future role of entrepreneurship education and training and the delivery of mindfulness interventions aimed at this population.

The author argues that the findings of this study make a case for mindfulness and the development of resilience being an important concept for entrepreneurs. That both mindfulness and resilience are a necessary set of resources requiring development as a means of equipping the entrepreneur for success. Specifically, the author argues that mindfulness helps to develop dimensions of the self (self-awareness and self-knowledge) which fosters the 3 domain of resilience (affective, cognitive and self-regulatory) in the entrepreneur. The study has implications for the development of training programmes on entrepreneurship generally.

## **7.1 Theoretical contribution**

### *Resilience, mindfulness & psychological well-being*

The contribution of this study is based on an engaged scholarship approach combining scholarly rigour and practitioner relevance (Hodgkinson & Rousseau, 2009) to an under theorised aspect of resilience research in entrepreneurs. The similarity and convergence of this study to the research on mindfulness, resilience and psychological wellbeing in entrepreneurs has been made explicit. The research has shown that mindfulness demonstrates the potential to foster resilience, as mindful people are better able to respond to difficult situations without reacting in automatic and non-adaptive ways. They are more open to new perceptual categories (Langer, 1999), tend to be more creative and can better cope with difficult thoughts and emotions without becoming overwhelmed

or shutting down (Langer & Moldoveanu, 2000; Wallace & Shapiro, 2006). The author presents the evidence that mindfulness weakens the chain of associations that keep people obsessing about and even wallowing in a setback.

Studies have showed that resilient individuals could maintain their physical and psychological health both through buffering negative consequences from difficult times (Conor & Davidson, 2003) and through improving psychological wellbeing (Ryff & Singer, 2000). Thus resilience can be seen as an important source of subjective wellbeing.

Indeed, cultivating awareness of the self is central to many mindfulness practices (Nhat Hanh, 1999). That is, mindfulness may improve self-awareness and self-knowledge of one's habitual patterns, which then helps people notice the consequences of their personality and make changes that have more desirable consequences thus becoming more resilient. The theoretical underpinning for the main hypothesis of the current study was that mindfulness improves all three domains of psychological fitness (affective, cognitive and self-regulatory), which ultimately improves resilience in the entrepreneur. Furthermore, the awareness (self-awareness) and acceptance (self-knowledge) aspects of mindfulness may facilitate improved self-regulatory behaviour thus enabling one to become more resilient which may also lead to greater psychological wellbeing. This is consistent with the findings of Bajaj and Pande (2016) who found that resilience had a mediating effect between mindfulness and psychological wellbeing.

This study has developed knowledge of the link between mindfulness and resilience and developed an argument of the conceptual bridges between both. The review of the literature pointed to two important contributions; which link mindfulness and resilience conceptually. The author puts forward the view that the conceptual bridge between the two lies in dimensions of the self specifically self-awareness and self-knowledge. When an entrepreneur develops a greater awareness of the self, an ongoing cyclical process of cognitive transformation subsequently develops a greater knowledge of how the self is seen by themselves and others. This developed sense of helps the entrepreneur to be a better appraiser of their situation enabling them to be more in control of their

thoughts (affective), feelings (cognitive) and resulting actions (self-regulation) ultimately developing one's resilience. This in itself is a contribution to knowledge.

The addition of value based goals activity informed by ACT to the design of the MBSR/MBCT intervention is a unique theoretical contribution which helps to make mindfulness interventions highly appropriate for entrepreneurs and confronts head on one of the biggest dangers to their mental health i.e. burnout from over working and an obsession on success over happiness.

### *Entrepreneurship*

The literature on the development of resilience and mindfulness in entrepreneurs is scarce as is the literature on coping mechanisms to help entrepreneurs cope in the environment they operate within whilst maintaining positive mental health and avoid burnout. The current study adds valuable scrutiny to this debate. This study makes the case that entrepreneurs would benefit from mindfulness training and that improved resilience has a mediating effect on mindfulness exerting its benefits on psychological well-being.

There are real world implications for entrepreneur with regards to mindfulness training. It is recommended that entrepreneurs consider the potential of mindfulness training early on in the entrepreneurship journey. The author accepts that entrepreneurs are busy people who often struggle to make the time for non-business pursuits. However, the author argues for a shift in thinking of how we portray entrepreneurs, in that we need to stop viewing them as people who are void of or do not need to be in touch with their emotions. We also need to encourage entrepreneurs to have a better work-life balance. It may be challenging initially to get entrepreneurs to buy into the notion of mindfulness but the author believes it is necessary to get the message across and clearly articulate to this population the benefits to be derived from improvements in mindfulness and resilience to last the journey. It must however be noted that just like other programmes, mindfulness may not be suitable for certain individuals and

entrepreneurs must assess the risks and potential harm outlined earlier associated with mindfulness training as a result of participation.

## **7.2 Empirical Contribution**

To the authors knowledge this study is novel in the sense that no other has tested the hypothesis that mindfulness improves resilience in entrepreneurs from a positivistic perspective. The current study gives empirical evidence for the role of mindfulness in the development of resilience in entrepreneurs. It also gives further evidence to support the view that resilience acts as a mediator in mindfulness exerting its benefits on positive mental health for said population. The qualitative findings added depth and richness whilst at the same time unearthing the important role mindfulness play in the development of the ethical dimension with entrepreneurs.

This study has presented evidence to support the theoretical link between mindfulness and resilience and developed an argument of the conceptual bridges between both. The research pointed to 2 important contributions; which link mindfulness and resilience empirically. The quantitative results support the view that mindfulness interventions improve resilience and psychological well-being whilst the qualitative findings add rich narrative as to how and why these perceived improvements take place. Participants made specific reference to perceived changes in dimensions of the self specifically self-awareness and self-knowledge and how this has helped them to become more resilient and cope with the entrepreneurial environment.

## **7.3 Methodological contribution**

Methodologically, this study was reliant on hypothesis testing via a quasi-experiment design where establishing objective truth is central to the research.

There is a paucity of research into the role of mindfulness in developing resilience in entrepreneurs using a hypothetical deductive approach. Most research in this area tends to favour the symbolic elements of entrepreneurship drawing on schemes of meaning, interpretation and definition and privilege the interpretive approach to analysis. The approach taken in this study was a welcome addition in terms of the intervention itself and the longitudinal aspect of the study (3-month intervention and 3 month follow up). These were both novel features of the research.

#### **7.4 Practice contribution**

The inclusion of minor ACT components i.e. values based goal setting to inform the MBSR/MBCT intervention may be a valuable addition to developing mindfulness programmes for entrepreneurs. Encouraging entrepreneurs to be more accepting of self-doubt may result in entrepreneurs being less vulnerable to mental health issues alluded to by Freeman (2015). Simply acknowledging vulnerability, and avoiding impression management strategies such as "*fake it till you make it*" (Nagy et al., 2012). may help with entrepreneurs avoiding mental health issues such as mood vulnerability, anxiety and depression. The notion being that Kabat Zinn's moment to moment "awareness" develops ones self-awareness in recognising unhealthy automatic behavioural patterns (Ryan & Deci, 2000) which could lead to burnout or soul sickness (Wright, 2010) as a result of permanent stress (Cartwright & Cooper, 1996). Brought into awareness it is possible that entrepreneurs may focus too much on work at the expense of other aspects of life nutrition. Entrepreneurs are intrinsically goal oriented and their minds like the feeling of purpose which goals offer (Shir et al., 2014). But the problem here is that goals can be set without really examining why. Once set, their gravitational pull can pull us away from the things we truly value. Hence, it's no surprise that many entrepreneurs who suffer burnout cite that whilst pursuing goals they feel busy and purposeful, but once achieved they felt empty and sad.

Working with values rather than goals as advocated by ACT, may be a valuable contribution to any mindfulness programme specifically designed for entrepreneurs. Unlike goals, values are often life-long and give life meaning and purpose. Knowing our values will help us decide how to react to stress and distress and how better to deal with it. In spite of how we feel, we can still move in a forward direction and service of our values. Focusing on values rather than goals will help the entrepreneur to be less self-critical when goals aren't met and to maintain resilience in spite of challenges. The author acknowledges that ACT indeed is more complex than the values based element of ACT utilised and referred to in this study, but feels that the potential merits of ACT being merged with MBSR/MBCT for mindfulness programmes with entrepreneurs merits further scrutiny.

The author argues for mindfulness programmes to be considered from the viewpoint that mindfulness can play a potential role in developing resilience. However, it is argued that if one learns to become more resilient it has additional benefits in the workplace.

#### **7.4.1 Informing evidence-based mindfulness programmes for entrepreneurs**

The 8 week MBSR/MBCT package although in line with the format advocated by Kabat-Zinn (2003), was contextualised for this study in that the week by week content was made applicable to the entrepreneur. The contextualisation of the content to the entrepreneur was to aid the individual in seeing the relevance of the content to their environment and to help limit the misconception that mindfulness couldn't help them due to its perception of being non-goal orientated. The addition of values based goal setting informed by ACT was a useful addition to help entrepreneurs become more aware of the dangers associated with entrepreneur obsession around work and the potential impact on one's resilience and mental health. The ability for entrepreneurs to develop both self-awareness and self-knowledge of their one work/life balance and its impact was deemed crucially important. The 10-part life nutrition activity was added to bring

awareness to the idea that work is only 1 of 10 constructs that make up your life nutrition. This was a unique contribution and may have potential for further developing a specific MBSR/MBCT package informed by the ACT component of values based goal setting specifically targeted to entrepreneurs. The author does however feel that one key challenge with entrepreneurs is the 8 week, 2-hour commitment required to complete the intervention when delivered by way of trainer input. The nature of the entrepreneurial environment can make it difficult for an entrepreneur to commit to such a lengthy programme thus other delivery methods such as digital app & webinars may need to be considered. It is also argued that by nature of the entrepreneurial personality it may require more work in tackling some of the myths around what might be seen as a seemingly left field approach to personal and organisational development and to offer empirical evidence on how mindfulness can indeed benefit the entrepreneur.

#### **7.4.2 The future of entrepreneurship education and training**

Critiques of the implementation of mindfulness strategies in the workplace have been predominantly pessimistic with little indication that much good can come from it. Titimuss (2016), in particular is scathing about a corporate takeover of mindfulness which has provided powerfully positive public relations propaganda for organisations such as Google and Amazon whilst leaving untouched appallingly stressful working conditions for employees in a wider society riddled with corporate greed, corruption, and gross inequalities of wealth, status and opportunity. However, it is understandable that mindfulness techniques have garnered mainstream appeal, in part, because they allow people to privately managed their stress and well-being at little or no cost to state or corporate bodies (Walsh, 20118). The high demand for mindfulness is not only driven by the overwhelming privatisation of stress, but also by the near doubling of mental distress rates since the beginning of neo-liberalism (Fisher, 2009; p.32). Arguments that corporate mindfulness might work to change the culture and improve working conditions for employees is challenged by Purser and Ng (2015) who argue that many of the companies now offering mindfulness courses as

forms of stress reduction actually caused it in the first place and are not dealing with the systematic causes of stress.

Since the entrepreneur is the main beneficiary of their work, the author argues that although the research on mindfulness with entrepreneurs is scarce, as it develops it will be subjected to the same if not more criticism. It is understandable that due to the commercial business environment that entrepreneurs operate within where there is a high need for improved productivity and creativity, that it will have its sceptics. Just like with corporate organisations it is plausible to assume that entrepreneur's left uneducated about their impact on the collective suffering of others (i.e. stress) may march on regardless promoting a workplace culture where burnout of themselves and others is all too common. The author argues for the importance of training and educating entrepreneurs to develop an awareness of responsibility not just for their business and immediate family or networks but for a much wider circle of people and indeed societies. This approach to education and training connects to and stays true to the 'meta' practice in Buddhism.

There are some arguments that the "Trojan Horse" of mindfulness (Lavelle, 2016) through the gradual enlightenment of individuals, especially leaders, within corporate organisations may eventually engender institutional reforms, which will benefit both employers and employees. Lavelle sees no evidence for the effectiveness of this strategy. However, the history of Buddhism over two millennia is characterised by a robust pragmatism so it is legitimate to speculate about whether the famous "middle way" might not offer some hope of agreement between both ends of the mindfulness argument in the field of workplace mindfulness. Findings in this study, give support for the idea that reconciliation on the grounds of a secularised mindfulness programme retaining the ethical roots of the practice is entirely possible and worthy of further scrutiny.

Certainly the recent report Building the Case for Mindfulness in the Workplace by The Mindfulness Initiative (2016) attempts to tackle a number of contemporary critiques of workplace mindfulness in addition to suggesting certain criteria of good practice in response to perceived limitations. They give many anecdotal accounts of employees walking away from toxic working environments as a way

of avoiding the claim that mindfulness within the workplace aims to produce passive employees. The key challenge with citing this post mindfulness activity is that if such activity became widespread then investment by corporate organisation's or indeed entrepreneurs alike would no doubt be curtailed.

The author would argue that current research fails to adequately explore the potential of mindfulness interventions to allow for a cultivation of entrepreneur values, which may question working practices and the role of their work in the wider social/cultural milieu. There is also a specific lack of evidence of how the development of values based behaviours can help entrepreneurs navigate the entrepreneurial landscape and more adequately cope with the stress it creates. The author argues that the qualitative data gives rich examples of the lasting benefits such training provides entrepreneurs in that in developing a more mindful approach the participants perceive it to have improved their resilience.

The author makes the case that mindfulness has an important role to play in the content designed for entrepreneur education and training. As much as traditional entrepreneurship content such as product service planning, performance metrics and market assessment all have a place these fail to adequately consider the humanistic element of decision making which is ever present in being an entrepreneur. Thus, future entrepreneurship training which combines both the technical aspect of the job; associated with productivity and creativity with mindfulness practice associated with aspects of the self is to be encouraged. This study highlights the benefit of mindfulness training, which enhances one's ability to think mindfully through the development of mindfulness practices such as meditation, mindful movement and emotional introspection. The principal aims of all such activity will be to help entrepreneurs switch off from autopilot by examining impulses and emotions, which distort or inhibit clarity of thinking about the environment around them. In this way, the cultivation of a critical attitude toward entrepreneurial activity may encourage the autonomous moral decision-making which can transform understanding and alleviate destructive entrepreneurial tendencies which may cause individual and collective suffering.

Whether entrepreneurial education and training programmes will be able to realise such critical and transformational ideals amidst the demands of

contemporary capitalist outcome driven environments is yet to be determined. The commitment of practitioners driven by a conception of mindfulness informed by the ethical principles which underpin what Kabat-Zinn refers to as the “universal dharma” will be important in moving towards this aim (Sun, 2014). The author argues that the current study did manage to deliver a transformational mindfulness intervention, which has had lasting effects on its subjects.

The author believes that this research has implications for policy development and has the potential for business advisory services such as Jersey Business to offer mindfulness training in order to help the entrepreneur develop the necessary resilience to last the journey. However, organisations would have to in their scoping and planning considering the cost of such interventions, the objectives and scope, suitability of the trainer and quality of the intervention itself versus the potential benefits to be derived from such investment. The author argues that if local authority advisory agencies engaged with training programmes such as mindfulness which were not so much about developing mechanistic skills such as accounting and project management skills but more about coping skills such as resilience and mind-set, that they may over the long term see an improvement in start-up business successes. This does however mean that there is a need for entrepreneurship support workers to gain the necessary training to ensure that they can deliver Kabat Zinn’s package as it was intended and minimise risks associated with mindfulness participation. Training that considers the intensity of the practice, the vulnerability of the person and the quality of the mindfulness instructor/instruction must be invested in to ensure that protection against risk is in place for those practising mindfulness and that teachers of mindfulness-based programmes receive appropriate training and supervision. Trainers must all consider the context by which entrepreneurs operate within to ensure that content reflects the discrete challenges entrepreneurs face.

For this type of entrepreneurship training to develop any form of traction, further studies on the benefits of mindfulness for entrepreneurs need to be undertaken by entrepreneurship scholars to collate tangible evidence that mindfulness based initiatives do really help to develop the resilient entrepreneur. One could also argue that these findings may also be of utility to management scholars outside

of the entrepreneurship field as resilience and mindfulness have gained much interest in management theory generally.

## **7.5 Limitations of research**

Methodologically it should be noted that this was a small-scale study with a small sample size and as such it is prudent to caution the (internal validity) and thus the certainty of the findings. Although, not inherently a limitation, a necessary compromise of the study was the quasi-experimental design, thus in the absence of a control group it was not a true experiment. On reflection, it is felt that the approach adopted was appropriate to interrogate the research question, explore the novel theory underpinning it, and importantly it aligned with the chosen philosophy of positivism. It could be argued that the addition of value based goal setting using ACT was to succumb to the pressure of McMindfulness in that we did include an activity in the intervention which is not in alignment to a traditional mindfulness intervention and the Buddhist roots of mindfulness. The author argues that the key words here are “values based” as the goal setting was with a view to encouraging the entrepreneur to consider what it means to have a work/life balance and not set only work related goals. The author feels that this addition was a necessary addition to avoid the entrepreneur utilising mindfulness as a means of bringing work more into awareness and risking obsession about becoming even more efficient about work.

Although the qualitative data added richness and further support to the quantitative results the author on reflection understands that as Question 2 was leading i.e. it asked people to refer to improvements in their mindfulness and resilience that this may have indeed resulted in a biased account and may account for why participants tended to only provide positive changes that have occurred. Despite this the author believes that the qualitative data adds richness to the results obtained from the quantitative analysis and further supports the findings in that perceptions amongst participants were that improved mindfulness improved their resilience.

The home practice element of the intervention was too loose in terms of its definition and left quite undefined. If this study were to be repeated, it would be important to more clearly define what we mean by home practice. It would also be deemed necessary to track participants for longer as the author has a hunch that home practice may become more important the longer the participant has finished the intervention itself.

The results are based on individuals, with similar backgrounds and education levels. Research that includes more diverse societal and professional groups is to be encouraged. Difference in results and how mindfulness affects resilience should additionally be studied in more diverse and clinical samples. More studies are needed with the population group, namely entrepreneurs. Studies in this context are rare and are required to shed more light on the potential role of mindfulness in developing resilience in this population. Content on the 8-week package needs further testing and contextualization to the environment of the entrepreneur. If this study was to be replicated it would be recommended to do further work with entrepreneurs to develop the eight-week content.

Conclusions about mindfulness training and associated changes in self-related processes need to be corroborated in longitudinal studies (Davidson, 2010) but costly and time consuming. It would be worthwhile repeating the measures conducted in this study over a longer time period to establish the protective effect mindfulness has on resilience post intervention.

## **7.6 Directions for future research**

This research has unearthed both theoretical and empirical questions, which the researcher feels warrants further exploration. It would be highly advantageous to repeat the study with a larger sample size and include a control group. Repeating the study using a longitudinal design to include analysis beyond the 3-month period would be beneficial. As the author argues that both self-awareness and self-knowledge are the key links between mindfulness and resilience and the author feels that the FFMQ alludes to these constructs, it would be prudent to consider using a more direct measure for both self-awareness and self-knowledge within the methodology adopted. Whether mindfulness programmes which allow for a cultivation of moral and ethical development in entrepreneurs which may question working practices and the role of the entrepreneur in the wider political/social and cultural milieu can ever be successfully implemented in the neo capitalist environments entrepreneurs work within can only be answered by further work of current and future practitioners and researchers in the field. The findings in this study offer a pragmatic and balanced argument that modern secularised mindfulness do indeed have the potential to realise their transformative potential.

## **7.7 Final reflections**

Having completed this thesis, the author understands that for some people the question may remain whether mindfulness is just another fad (Dobkin, 2015; Hutchinson & Dobkin, 2009) not unlike the corporate culture fad or the organizational change fad. The author stresses that it is the responsibility of the research community to continue to develop high quality evidence-based research, which clearly articulates the benefits of mindfulness practice to workplace practice and specifically entrepreneurs. It is fair to question the alignment of traditional MBSR/MBCT programmes for entrepreneurs when the former is focused on no goal orientation, no deadlines and no ego yet the latter often thrive on said outcomes. It is for these reasons that the incorporation of values based goals

setting informed by ACT was a valid contribution in advocating a mindfulness intervention for entrepreneurs.

As entrepreneurs become more mindful when mindfulness learning and processes permeates their strategy, they will become more resilient. It is hoped that the more resilient entrepreneur will develop an attitude of openness towards discussing problems or issues that could affect them. Rather than adopting the "*fake it till you make it*" (Nagy et al., 2012) impression management strategy, paying greater attention to change and variation in work performance and personal resilience may encourage a greater work life balance.

Based on the empirical findings and the debates discussed in this study, rather than see mindfulness as the panacea to all entrepreneurs' problems and drains in resilience, it can be considered as a potential complimentary strategy alongside other coping mechanisms they invoke. The study has shown that mindfulness has the potential to develop the key constructs of resilience needed to enact the spirit of resilience and although the entrepreneur to fall seven times, get back up eight. In the article *Become a mindful leader: Slow Down to Move Faster* Jan Bruce (2014, n.d) states:

Consider mindfulness as a powerful lifelong strategy for entrepreneurs. As paradoxical as it sounds, you've got to slow down sometimes in order to move at the speed your demands and ambitions require. As an entrepreneur and leader, you don't want to keep pace; you want to innovate and push boundaries...you absolutely must reclaim mental and emotional territory from the stress of overwork and hyper connection.

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## Mindfulness for Entrepreneurs

Workbook version 1.0

*This is the true joy in life: The being used for a purpose recognized by yourself as a mighty one. The being a force of nature, instead of a feverish, selfish little clod of ailments and grievances complaining that the world will not devote itself to making you happy... I want to be thoroughly used up when I die ... I rejoice in life for its own sake.*

*George Bernard Shaw*

*But also..... I want to feel and learn from that process – as it is, good and bad, as it changes high and low, as it poisons and nourishes me....Every Step of the Way!*

*‘Anonymous Mindfulness Embracing Entrepreneur’*

## Mindfulness for Entrepreneurs Course

Welcome and thank you for choosing to find out more about Mindfulness or to further develop your skills by attending this Course.

Mindfulness came about as the unusual marriage of Eastern philosophy and practice, as well as modern psychological principles. We know Mindfulness is helpful in a variety of areas: health and mental health, chronic conditions, sports and workplace performance, in positions of responsibility and care, but also just as a skill for generally improving quality of life.

I am now coming close to 10 years of experience in teaching Mindfulness and/or treating a large number of clients and/or offering consultancy utilising mindfulness-based therapies. All this knowledge and the reading of mindfulness literature, heavy influence from MBSR and MBCT and particularly the Breathworks approach, as well as based on my own experience as and of the workplace and entrepreneurs, paired with Glenda's extensive experience, reading and research in this area, we have developed a package that we feel will suit Entrepreneurs. In the next few weeks we will work together to discover what Mindfulness entails. We will also invite you to begin to introduce Mindfulness in your everyday life. My best tip is to invite you to stay curious and to practice here and also at home, in whatever way works for you. The guidance would be around 20-25 minutes per day as a mixture of both formal (on the matt/stool/chair) practice and informal (transferring skills into things you do every day), so I would invite you to do what you can. If you think of mindfulness as life 'nutrition' or an 'antibiotic' for life's difficulties, then 'dosage' is important. In this pack you will find all that you need to know or remember from our group sessions, in order to begin practicing mindfulness. We will also provide you with a USB stick containing the meditation practices we will visit together (and others).

I really look forward to working together and please do not hesitate to contact me over the next few weeks (see details included) if or when you have any questions.

With kindest regards

Alessio and Glenda

## Mindfulness for Entrepreneurs - Overview

Business leaders in general and entrepreneurs in particular, experience high levels of stress/distress due to the increasingly competitive and uncertain environments they operate within (Ayala and Manzano, 2014). Challenging circumstances and the adoption of the behaviour patterns of the surrounding culture minimize the likelihood of self-care (Freeman as cited in Bruder, 2014). In complicating matters, as well as neglecting their health, many entrepreneurs, harbor secret demons (Bruder, 2014). In particular, new entrepreneurs struggle through moments of near-debilitating anxiety and despair, times when it seems that everything might crumble. Rather than showing vulnerability, business leaders have practiced what social psychiatrists call impression management (Piwinger and Ebert, 2001; Goffman, 1959) also known as "*fake it till you make it*" (Nagy et al, 2012). However, this can come at a psychological price with entrepreneurs reporting higher levels of mood vulnerability, anxiety and depression than employees (Bruder, 2014). The development of resilience in individuals (Mowbray, 2011; Jackson, Firtko & Edenborough, 2007; Neenan, 2009) and entrepreneurs (Bullough, 2014) is viewed by many as a potential answer to the stress associated with contemporary lifestyles and workplaces.

Increasing interest in the development of resilient workers has meant an enormous growth in interest in the role of holistic practices such as mindfulness meditation (Foureur et al, 2013). Kabat-Zinn's mindfulness-based stress reduction (MBSR) and Barnard and Teadale's mindfulness-based cognitive behavioural therapy (MBCT) are the most commonly used by those seeking to practice, theorise or research mindfulness across mindfulness contexts. The purpose of the proposed research is to explore the potential benefits of mindfulness training in developing resilience in the context of entrepreneurs.

The idea that there is a relationship between mindfulness training and improved resilience in the entrepreneur is on the premise that mindfulness, mindful learning and mindfulness processes develop the key constructs of resilience (resourcefulness,

hardiness, optimism, positive emotion and self-awareness) and that self-awareness is the underexplored lineage between both mindfulness and resilience.

Mindfulness means deliberately attending to and becoming more aware of our experience: of our thoughts, feelings and body sensations. This allows us to clearly perceive thoughts, physical sensations, emotions and events at the moment they occur without reacting in an automatic or habitual way.

By developing a new relationship with the conditions we find ourselves in we begin to respond creatively. Experiences don't overwhelm us and we can remain steady through life's ups and downs.

Mindfulness isn't a cool and detached awareness though -it's warm, gentle, and kind. Towards the end of the course we'll introduce a kindness meditation, which will help you to develop this aspect of mindfulness further. Like mindfulness, kindness has been shown to reduce levels of stress.

During the course we will be engaging in various activities to foster mindfulness and kindness. These include formal meditation practices, as well as small things we can do in the midst of our daily lives, such as doing a routine task mindfully, taking a break, slowing down a little. In particular we'll be using the body sensations and the breath to help develop awareness. The aim of meditation is not to prevent the mind wandering off -which it will do, repeatedly - but to get into the habit of learning to check in with our experience.

The formal meditation is focussed practice at learning to check in, and the informal mindful activities are means to extend that learning into our daily lives. We need both. During the course you are encouraged to try out all the different practices fully, so that at the end of the course you can decide which practices work best for you.

Each week of the course has a theme:

**1 Defining mindfulness and how it may impact on resilience.** Much of our stress is exacerbated by our resistance to unpleasant experience, and what we resist tends to persist. So we are caught in a trap: the more we resist the more it persists! Mindfulness allows us to accept experience rather than reacting to it, which - paradoxically - allows us to let go of it. This lightens our load considerably, allowing us to get on with our life quite happily, even though it's not completely sorted. (And will it ever be?)

**2 When all your knowing doesn't work.** When we're stressed we naturally try to do something about it, and this usually entails thinking - problem-solving. The trouble with this strategy is that it doesn't work very well! In fact it's more often than not counterproductive when we feel it is becoming tiring, when we find going over and over the same information,

chewing/mulling over the same unhealthy repetitive, poisoning thoughts. Thinking about our stress keeps us stressed! An important aspect of mindfulness practice is to pay more attention to our senses - body sensations, sounds, sights, tastes - which brings us back to our actual experience in the moment. This greatly reduces the need to 'over-feed' on certain thoughts, when we get thoughts-nausea.

**3 What's your choice?** Thoughts are one of the main causes of stress, trapping us in a loop in which we try to solve our problems, while the very act of trying to solve the problem keeps us tied to the problem. But what to do when we have racing trains of thoughts that, before too late, have taken us far away from where we want to be and driven us at high speed towards anger, frustration, repetitive habits (drinking, over-eating, reacting or even crashing)? We can't just stop thinking! One of the skills you'll learn is to notice thoughts as they arise in your mind and let them go. This is a liberating insight for people who attend the course.

**4 Driving in the right gear.** Life, as you know, isn't easy. Financial worries, issues around the way we earn our living and with work colleagues, difficulties in our relationships with family and friends, training our brain to be busy, multitask, push harder or the extra mile - who doesn't have them? Mindfulness doesn't make everything nice and smooth and easy. Rather, it enables us to develop skills and inner resources to cope better - in fact to flourish - in the midst of the sometimes difficult and messy aspects of life. Learning how to be with unpleasant, difficult experiences without allowing them to 'press our buttons' is a key skill that you'll learn. This helps us 'driving' the right chemicals to travel through our body and brain - YES! That's correct. How we approach our experience (thoughts, body, activities, emotions) and how willing we are to explore gently both pleasant and unpleasant experiences, can help us produce different chemicals that drive different states and are helpful in different settings.

**5 Take in the good.** Not that life is unremittingly difficult either! There's pleasure, enjoyment, beauty and love out there too. When we experience some difficulty in life we have a tendency to focus on it, often to the exclusion of all else, and especially the good things that are happening. On this week of the course we encourage you to widen your gaze a little and notice the small pleasures of life, which often go unremarked - the sun coming from behind a cloud and warming your face, a vase of yellow and blue flowers, a compliment from a friend, a job well done. We're not trying to 'think positive', just trying to level the playing field - and to use our SENSES to absorb and retrain our 'negativity bias' - our evolutionary drive to find threat. This was hugely helpful as cave people simply focussing on survival, with less language resource and predominantly aiming at passing on gene copies. However, as evolved creatures with a not so evolved brain, that 'negativity bias' can turn onto its owner. By noticing the good things and letting them affect us we're working against what neuroscientists call the inbuilt 'negativity bias' in the brain and 'retraining' it to apply a broader filter to our experience.

**6 Avoid crash and burn.** In a way the word mindfulness gives a wrong impression. People often associate the mind with the head, with the brain, with cool, analytical thought. Mindfulness certainly isn't that. It's simply awareness, and not a cool and detached awareness either - it's warm, gentle, and kind. We emphasise this all the way through the course but in this week we bring it right into centre stage and introduce a kindness meditation. We also look at a 'funnel' model of stress to start considering what behaviourally we do, when the going gets tough and life only presents the same choices for nourishment. Perhaps we only 'feed' on work and have a deficiency in closeness,

relationships and leisure. Perhaps what felt nourishing and pleasant (a bit like one takeaway every now and again) has become monotonous, harder to 'digest' and no longer making us feel fulfilled – perhaps time to step back and think about what drains us and what sustains us – and how we can consider potential changes.

**7 Life nutrition.** When we're having a hard time it's easy to become preoccupied with our suffering, and this can become a trap. In the last part of the course we take the kindness meditation further, bringing others to mind and cultivating a warm, gentle, kindly awareness towards them too. This can be difficult, especially if some of them are the causes of your current stress and particularly because today we will test your mindfulness practice so far by inviting you to think of life as a 'pizza' or 'cake' of multiple 'flavours (valued areas of living). Then, we will invite you to notice, thorough practical exercises which 'slices' (areas of life) you have perhaps had difficulty to get good nourishment from – to notice, allow the discomfort with kindness and then think about goals Research has shown that developing a more kindly attitude towards self and others (perhaps in areas of life that have been but on the 'backburner' has a very beneficial effect on the state of our mind *and* body, including the reduction of stress.

**8 Nourishing resilience.** On the final week of the course we review everything we've learned and practiced, and we look to the future and set explicit goals to improve your life 'nourishment', whilst allowing non-judgementally- thus practising reactions becoming responses The course only works to the extent that we practice. Now that we've come to the end of the course, how will you continue to practice and continue to benefit from it? We discuss ways of keeping inspired and reviving our inspiration when it flags. And we encourage you to look after yourself in the future. This isn't 'selfish', it's sensible. After all, if you're going to be any help to others, you have to be in pretty good shape yourself! And we hope you will leave with your 'secret recipe' for a flavorsome 'pizza' or 'cake' of life

Each week we introduce a practice or develop one that you've learned previously. The **Body Scan**, which helps us to pay attention to the various sensations in the body, enabling a more 'embodied' awareness of ourselves than we usually have. Paying attention to the body in this way has the effect of quietening down our thoughts, noticing unhelpful automatic pilots (e.g. when stressed we may habitually clench our teeth, hold our stomach or shoulder in with effort, etc.)

In the **Mindfulness of Breathing** we rest our awareness on the sensations of the breath entering and leaving the body. This has a calming effect, stimulating the parasympathetic nervous system and allows us to return to the sensory here-and now, have a birds-eye view of thinking and use the breath as an X-ray to check what our thoughts-over (our mind/brain) is cooking up for us!

**Mindful Movement** is a kind of moving meditation that we will tag along the other practices such as the Body Scan and Mindfulness of Breathing. As for these, it allows us to get out of our head and to have a more 'embodied' awareness of ourselves.

The **Kindness Meditation** is a development of the *feeling* aspect of mindfulness. Many people are critical of themselves and this is an added source of stress. If you can never live up to your high expectations, will you ever be able to relax? Research has shown that being strongly self-critical does not help us to change for the better. On the contrary, developing kindness towards ourselves - and self-compassion when we're suffering - helps to bring about the changes we wish to make. Then, when we've learned how to be kind to ourselves, we extend that to others. Kindness to self and others develops emotional resilience and is a great source of happiness.

**Habit breakers.** In addition to the more formal practices listed above, each week we introduce a small - 'micro' - practice that you can do in the midst of your everyday life and grow it over a period of time. Doing something mindfully rather than without awareness, doing something slowly rather than habitually quickly, taking breaks (or at least a break!), accepting a difficult experience, noticing and letting in the good things that happen, trying to hold everything that happens within a wider perspective, responding rather than reacting to things and people, accepting the need to work within a neglected area of 'life nutrition'. This develops psychological flexibility as we stretch the variety of responses we can practice in a given situation.

We can't always choose what happens to us or how other people behave, but we *can* learn to have more choice in how we respond to life's events.

## **Week 1 – Defining mindfulness, operating on Autopilot**

A lot of time we spend our lives on “autopilot”. We might notice this sometimes when we are driving or walking somewhere – we arrive, but have no real recollection of how we got there. Sometimes we planned to go a different way home (maybe to do some shopping on the way back) and find that we have missed our turning and are heading on our usual route back before we “come to” and recognize what has happened.

In mindfulness practice we are aiming to develop awareness. Mindfulness means deliberately attending to and becoming more aware of our experience: of our thoughts, feelings and body sensations. When we are not very aware, running on autopilot, things happen to us and we react in habitual ways – like having our buttons pressed. When we are aware we know what is happening. We can come to recognize triggers to unhelpful behaviour and become aware of thoughts and feelings that can gradually build up. In addition, developing more awareness can help us to savour our lives more fully and help us to enjoy the beauty and richness in life.

During the course we will be engaging in various activities to foster mindfulness. These will include formal meditation practices, as well as daily activities such as eating and walking. In particular we will be using the body sensations and the breath to help develop awareness. The aim of meditation is not to prevent the mind wandering off – which it will do, repeatedly – but to get into the habit of learning to check in with our experience. The formal meditation is focussed practice at learning to check in, and the informal mindful activities (such as eating or walking) are means to extend that learning into our daily lives. We need both. During the course you are encouraged to try out all the different practices fully, so that at the end of the course you can decide which awareness practices work best for you.

### **Mindfulness is**

cultivating the quality of being awake, present and accepting of this moment’s experience – which has a transforming potential on how we are with ourselves, how we are with others and how we are with stressful, difficult and challenging situations.

### **How Mindfulness Helps with Stress by increasing awareness and leading to resilience**

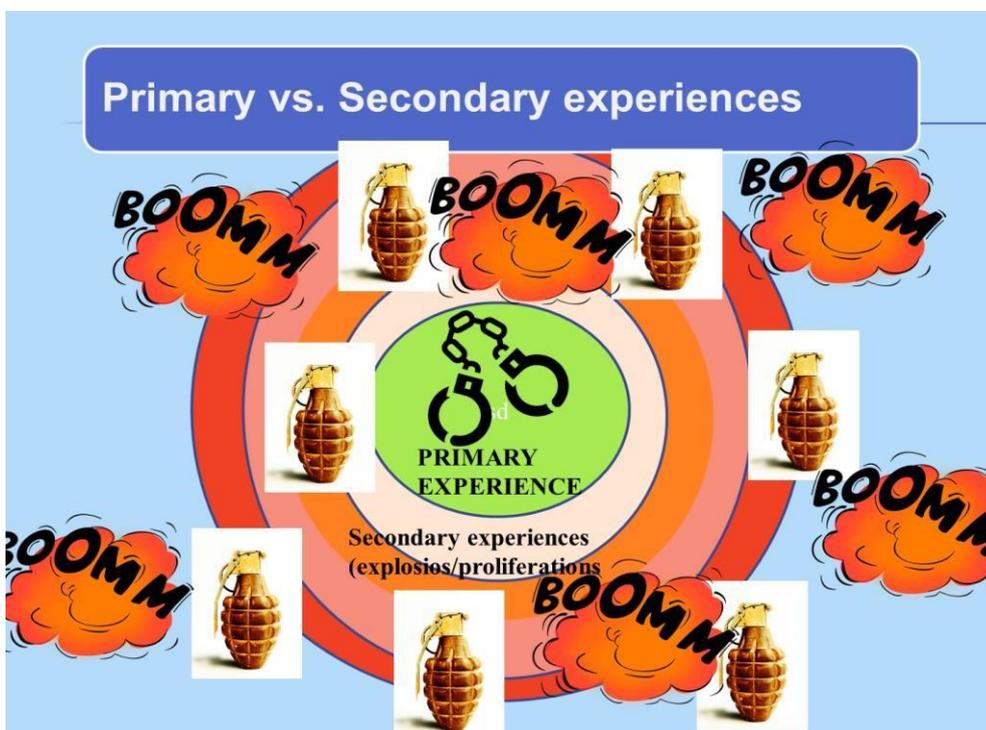
Stressful things happen: we might be stuck in a traffic jam, or having a communication difficulty, or feeling low about something that happened. That’s our actual, direct experience, and we can’t do very much about it. However, we often cause ourselves extra,

unnecessary stress by *reacting* to that experience, with various thoughts, feelings and judgements. For instance, let's say you are under pressure to finish a job by a certain time. You might have such thoughts as "I'll never get everything done in time", "Why did I agree to do this in the first place?", accompanied by feelings of anxiety, inadequacy, resentment, accompanied by judgements such as "This is a stupid job" (judgement about the job) or "I'm useless at this" (judgement about self).

These kinds of reactions often tend to proliferate or escalate - one thought leading to others, leading to more feelings, leading to more judgements. They're also obsessional, trapping us in the problem that we're trying to solve. Before we know it we're drowning in a sea of despair!

We call our initial and direct sensory experience *primary experience* and all the reactions to that *secondary experience or chain reaction or explosion*. Mindfulness helps us to deal with stressful situations by continually coming back to our primary experience.

OK, so you might still be under pressure to get that job done, which you may experience as unpleasant, but that's all. You don't have to cope with all the extra negative thoughts and feelings that your mind has conjured up.



## **Meditation Posture**

### **Lying Down**

The Body Scan is usually done lying down, although you can also do it sitting up. When lying down, it is best to lie on something that is comfortable, but firm, so that it supports you. This can be your bed if it is quite firm, or a thick mat on the floor. Put a cushion or pillow underneath your head, so that your neck is not tight or cramped. If you have a lower back problem you may find it more comfortable to have a couple of cushions beneath your knees, or have your legs bent, with the soles of the feet on the ground. Otherwise you can have your legs outstretched. Your arms can either be lying down at your sides, with the palms facing upwards, or you can rest your hands lightly on the stomach, with the palms facing downwards.

Your body temperature will lower as you lie still during the practice, so try to make sure you will be warm enough. Perhaps cover yourself with a light blanket, or have one beside you in case you need it.

### **Sitting on a chair**

The main criteria in finding a posture for meditation is that the body should be subjected to as little muscular strain as possible, and that the posture supports an alert but relaxed state of mind. For some this will mean sitting on a chair; and some will find it most comfortable to kneel on the floor. Sometimes you may need to alter your posture within a meditation session, but if you do move, try to include that in your meditation, moving as quietly and mindfully as you can.

If you decide to sit on a chair, it's best to choose one that is straight-backed, such as a dining chair. If you sit in an armchair your body will tend to slouch. You are likely to feel sleepy and the shoulders will tend to round inwards, constricting the chest area, and this can bring emotional dullness. An upright chair helps the spine to follow its natural curves, creating a sense of openness in the chest that encourages alertness and emotional brightness.

Another way to maintain uprightness and avoid slumping is to rest your hands lightly in your lap, perhaps resting a cushion beneath them to raise their height a little. That allows the shoulders to remain open and broad, and they won't be drawn downwards or forwards by the weight of the hands as the meditation progresses.

Make sure your feet are flat on the floor. If your legs are a little short then place a cushion or pillow under your feet so they make a firm and stable contact with the ground.

**The most important thing is that, whichever way you practice, it is the most conducive to you fully attending to your time spent doing so – feel free to cough, sneeze, move, adjust, scratch....whatever it is that allows you to practice with more focus – pleasant or not.**

### **Habit breaker - Do One Thing (more) Mindfully**

Every week we're going to suggest one habit breaker you can do to bring mindfulness into your everyday life and to reduce stress. These small things take very little time - or no time at all in the case of this week's small thing! - but can have quite big effects. Doing one small thing on its own won't yield very big results, but doing it a number of times a day can make a big difference. This is because, just like if you were to want to exercise in the gym to run a marathon, unless you start transferring that training outside on the real 'run', then, it would be difficult if not impossible to run a marathon. Therefore, the habit breakers, do exactly that: they break you away from the usual 'automatic' pilots, make you more aware, help you transferring your 'brain workout' (meditation) into everyday life and therefore they create new habits (scientists call them neural pathways – yes you can lay new roads in your brain! by feeding it with attention to sense and by altering the quality of that attention).

This week's habit breaker is to be mindful while doing something that you normally do every day, such as cleaning your teeth, having a shower, eating a meal, opening and / or closing doors, walking up and / or down stairs, making a cup of tea or coffee, drinking a cup of tea or coffee.

This habit breaker doesn't take any time - meaning that it doesn't take any *extra* time out of your day, because you do these things anyway don't you? Just do it *mindfully*, which doesn't mean do it more slowly, it simply means *paying attention* to whatever you're doing.

Let's take the example of cleaning your teeth. Paying attention means, first of all, *just* cleaning your teeth, and not doing something else as well, such as cleaning the sink at the same time, or wandering out of the bathroom to continue a conversation (rather awkwardly!) with a family member. It means not multi-tasking and staying with anything sensory about that experience: taste, movement – and the flow of change of that sensory input.

And it means *bringing your mind back* to what you're doing whenever it wanders off on to something else, which it probably will do a number of times even in a two minute session of cleaning your teeth. This is, in practice, a repeat brain behavioural workout, practising noticing primary, going off on a little thoughts, imaging proliferation (secondary

experiences or explosions) and therefore coming back to primary (put the handcuffs on yourself!)

We've used the example of cleaning your teeth, but you can bring the same ideas to bear on whatever activity you choose to be mindful in: eating a meal, drinking a cup of tea, going up and down stairs, whatever.

## Week 2 – When all your knowing doesn't work, Barriers to Practice

You've been practising mindfulness for a week now (or perhaps *trying* to practice, or even noticing that you're *not* practising!) and you may have encountered certain barriers to practice. In fact you may be finding it harder than you expected. Don't worry, this is quite normal. Most people find it hard to establish a daily meditation practice and to remember to be mindful in their daily lives.

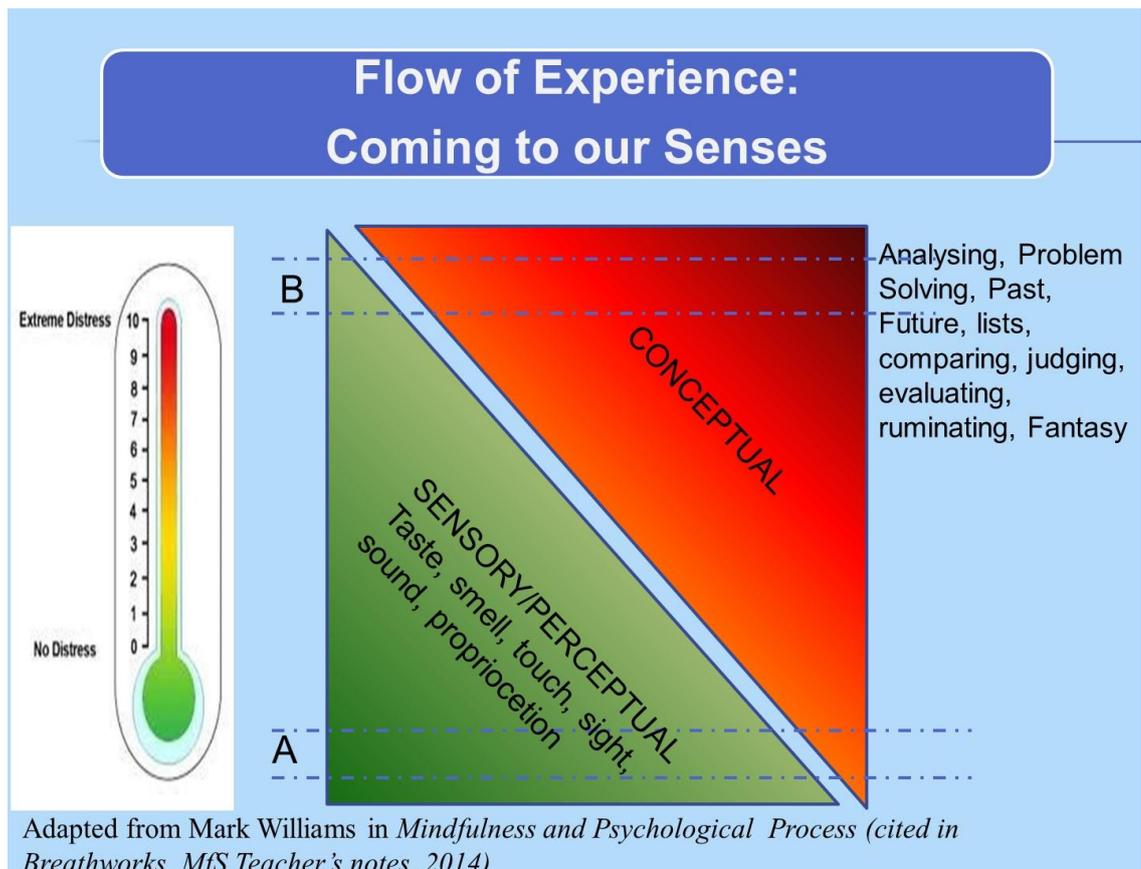
Common difficulties are:

- not feeling great during the meditation - boredom, irritation, anxiety, stress etc
- feeling disappointed that meditation isn't making you feel better
- not managing to find the time to meditate
- other people in your household not giving you the space to practice
- thinking that you're not doing it properly
- mind wandering a lot
- 'working' at it - 'doing' rather than 'being'
- feeling that you're wasting time
- trying to 'get somewhere' rather than simply noticing how things are (and then feeling disappointed that you're not getting anywhere!)

The main thing is just to practice, noticing your thoughts, feelings and judgements about the practice, but not taking any of them too seriously. Remind yourself that you decided to do this course because you thought it might help you to deal better with and reduce your stress, and that it will only work if you do the practices. It's too early to judge whether or not they work for you - you can do that at the end of the course. The founder of mindfulness in health care - Jon Kabat-Zinn - says "You don't have to like it, you just have to do it!"

If you find that you're not doing the practices, even though you want to, be careful not to judge yourself harshly. (Remember that an important aspect of mindfulness is 'nonjudging'). It's enough just to notice, and bring a sense of curiosity to your non-practice - "How curious - I did intend to practice every day, but I find that I'm not." Bring awareness to your nonpractice, or your reluctance to practice, and make that your practice. So use any opportunity to notice your grenade explosions and return to your sensations. If you think / know you haven't got 15-20 minutes then start with a small brain 'snack/feeder', just do something small (more) mindfully or maybe invite yourself to practice a formal meditation (Body Scan or breathing) for one minute and see how it goes.

## Coming to Our Senses



The diagram above shows two ways in which our minds tend to operate\*: the left hand triangle represents our direct experience of the world - the world we see, hear, touch etc. (primary experience.) The right hand (upside down) triangle represents our conceptualization of that world - the way we label every experience, and then think about, analyse, compare, judge it etc. (secondary experience).

When we're stressed or get carried away too much we tend to operate at the higher end of the diagram - in the band marked A - worrying, analysing, problem-solving, etc. The ability to think, analyse and reflect is a wonderful thing, but when we're stressed we tend to overuse this part of our mind, and this mental activity tends to keep us trapped in the feelings of stress.

Sensory Awareness and Mindfulness practice help us to move towards the lower end of the diagram, with a more direct experience of the world, and less thinking. The band marked B at the lower end of the diagram represents a high degree of sensory experience with very little thought. We don't have to make an effort to think less, our attention is so taken up with direct sensory experience that there's simply no room left in our mind for thinking about it.

Nothing wrong with being in the Conceptual Triangle as we often need it. However, we may and will notice with time that thinking often takes us away from fully attending and taking in what is in front of us – be it noticing the reaction of a person we are trying to sell something to or buy something from – away from their emotional reactions to what we say or do; therefore creating absence and disconnection: and that persons’ mirror neurons will be doing the same!

\* This is slightly adapted from Professor Mark Williams in *Mindfulness and Psychological Process*.

### **The Paradox of Mindfulness**

At the heart of mindfulness practice lies a paradox: if you want to get from A to B, you have to really be at A! Let’s say that you want to get from a state of anxiety to calm, for instance. Rather than making efforts to stop feeling anxious and start feeling calm (which tends to make us feel more anxious!), what we really need to do is simply feel the anxiety, explore the feelings, be curious about them. Where do you feel it in your body? How does it actually feel?

Be careful though - ‘A’ - in this case anxiety - is not the secondary experience. It’s not all the thoughts, extra feelings, judgements, analysing, problem-solving that usually accompany our feelings of anxiety. ‘A’ is the primary experience - our direct, felt experience of anxiety. When we stop resisting it, stop trying to push it away, stop trying to not have it, and instead allow it to simply be as it is, then we find that, in time, the feelings subside and calm down. “In time” could be a lot of time though - there are no quick fixes in mindfulness work! In the meantime, we can hold our anxiety, or whatever our ‘A’ happens to be - our primary experience - calmly, accepting that that’s the way things are right now.

### **Habit breaker – Take (as many as you want!) one breath from priority list**

Older people often remark on how fast life is these days, compared to when they were younger. No doubt this is true - transport is faster, food is faster, technology is faster, nearly everything is faster, we have hundreds of emails instead of 3-4 letters delivered each day. And it’s easy to get caught up in the speed of contemporary life, having a full diary, moving from one activity to another without a pause, and probably rushing through a fair part of your day. The problem with this is that it can become habitual, so that even when we don’t *need* to do something quickly, we still do. (People still drive fast even when they’re not in a hurry).

Doing everything quickly has quite a bad effect on us.

- it activates the stress-response system, releasing adrenaline and cortisol into your blood stream. These hormones weaken your immune system over time, and they also lower your mood.

- it puts the 'alarm system' in your brain on red alert, causing us to be on the lookout for threats. So we're quicker to find things to worry about and get irritated with.
- And it gives us less time to think clearly and make good decisions.

So, this week

*Do something really simple! more slowly and with more sensory attention (movement, tactile sensations of the body with the clothes, sound) than usual. Take one SIMPLE, FULLY CONNECTED BREADDTH, ON PURPOSE. It would be really helpful if you can catch yourself and do so during a 'high-priority' task or when you are planning your daily 'priority/urgent list/s'.*

. No one will be able to notice and know really, other than yourself. Try to connect to its sensation (primary/sensory experience) as fully as you can, noticing its flow and flavour. Nourish your brain with a simple moment of a full undivided snack on sensory attention. THEN REPEAT GORGE ON THIS, at will, on purpose, non-judgementally.

*Look for what's good in the moment. This is a good way to inhibit the tendency we have to zoom off.*

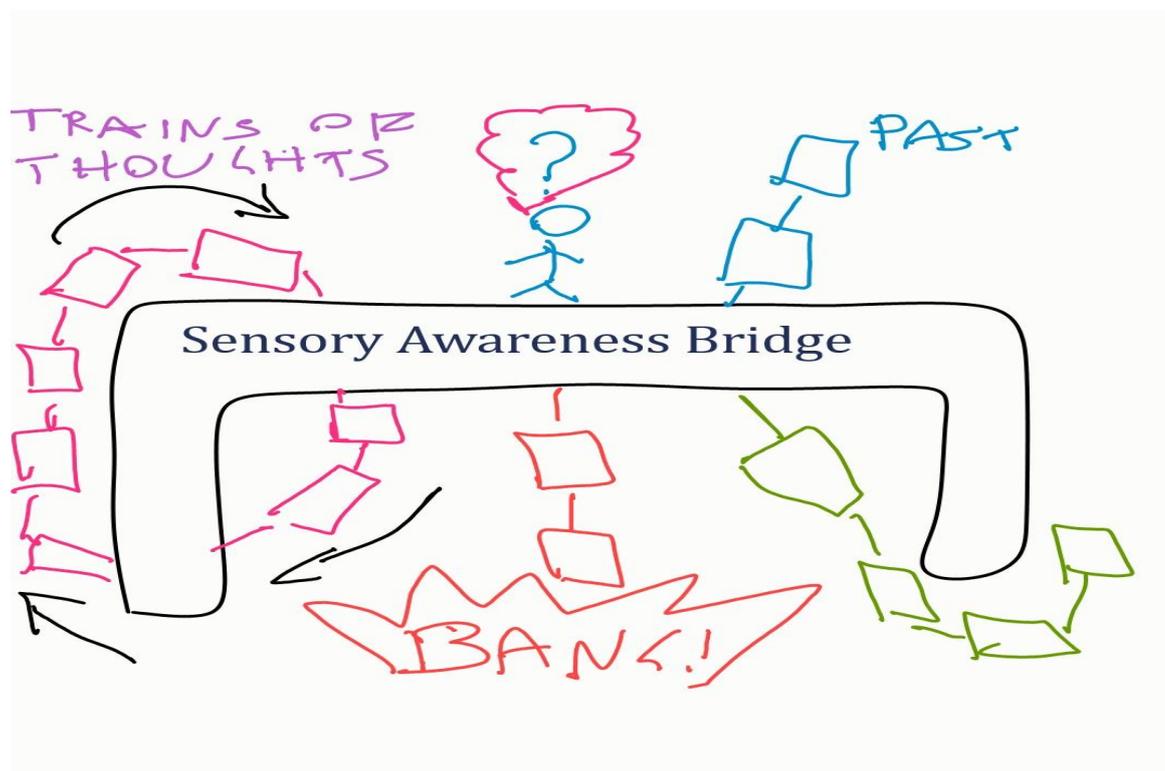
### **Week 3 – What’s your choice? - Mindfulness of Thoughts**

When people first start to practice mindfulness one of the first things they notice is how many thoughts accompany everything they do. They become aware that the mind never seems to stop thinking, and some people even assume that the practice of mindfulness or meditation is making them think more than they were before they took up the practice. This is not true! It is just that people notice how busy it is and, therefore, have a better opportunity to respond differently to their internal ‘explosions’.

A common misconception about meditation is that it involves trying to ‘make the mind a blank’, or to ‘empty the mind’ or ‘to relax’. That is as true as thinking that by eating KFC, McDonalds, Pizza or takeaway every day and then drinking a bottle of wine every day, you are going to get skinny!.

In mindfulness practice we try to look **at** our trains of thoughts rather than **from** them. Usually when we have a thought we tend to take it literally, we tend to *believe* what it is telling us, and we then look at the world *from* the point of view of the thought!” Of course it’s not that everything we think is untrue, it’s just that not *everything* we think is true, or helpful, and mindfulness helps us to notice our thoughts without necessarily taking them literally, without ‘buying into them’.

This ability to notice our thoughts without believing them is made more or less difficult by the nature of the thought you are having. Some thoughts are fairly trivial and so don’t have a strong emotional ‘charge’, such as “What shall I have for lunch today?” It’s quite easy to notice such a thought and then let it go. Other thoughts, although still fairly trivial in nature, have a sense of urgency about them – such as “I haven’t spoken to Jo for a while, I should ring her now”.



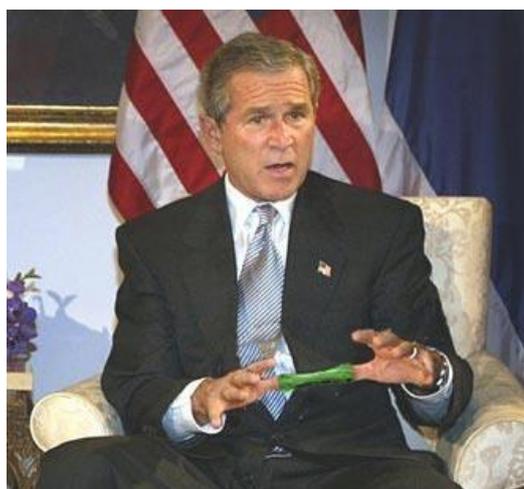
### The value of directed thinking

You may have got the impression from reading this essay that we are saying that thinking is not a good thing, or at least doesn't have much value – just watch thoughts and let them go! This is not the case though - thinking can be immensely valuable if it is fully conscious, directed, constructive, even perhaps creative. Everything we have written above refers to those stray, random, distracted and semi-conscious thoughts that just arise unbidden in our mind most of the time. When we get carried away by such thoughts we could say that we are not thinking so much as being thought – the tail is wagging the dog!

Sometimes it can be valuable to think something through, to come to a conclusion if possible, or at least to realise that a conclusion is not yet possible. For instance we may have a decision to make that requires us to think about the possible consequences in following through a certain course of action, such as, 'shall I move house?' In trying to think this through we will probably become aware of stray, random thoughts that distract us from our task. In that case our object of focus would be the thoughts connected with the possibility of moving house, and the other thoughts that 'intrude' upon this topic we can deal with in the way that we have recommended above - simply notice them and let them go. You may have concluded from the experiential enactment in the session today that , engaging in too many thoughts will get us stuck trying to 'solve' too much and effectively doing NOTHING. When we do, we will fall into habitual journeys – great when helpful but distracting when not. If we manage to hold on many thoughts at any one time, at times we may feel stuck – as if caught by multiple Chinese finger traps! And how will that help in a business deal when

you need to be aware not only of your thinking but of that of the person in front of you and to be present with all the information exchanged?

**So, what's your choice? Will you carry on going onto every possible journey and potentially get stuck like the guy below, or will you be aware of multiple trains of thoughts (potential 'finger traps') and choose which 'journeys' to take and which to let go?**



Think of Mindful Movement as a moving Body Scan. When doing the movements directed in the Body Scan and Mindful Movements track, notice any unnecessary holding and, as best you can, let the muscles soften. Between movements, stand still for a few moments, noticing all the sensations of the body, watching the breath and checking in with your experience. – it is kind of a moving body scan. We are using movement to ground ourselves in sensory / primary experience, on our sensory awareness bridge and therefore allowing ourselves the choice to be and rd gently and noticing whatever we find. the body. Draw them back towards you as you breathe in, and then let them float down to navel-height as you breathe.

### **Habit breaker - 3-minutes timeout on the bridge**

How many times a day do you stop whatever it is you're doing and take a break? *Really* take a break, as in *do nothing* for a little while? Most people I know go from one activity to another throughout the day, hardly pausing for breath. Many people don't even *stop* for a cup of tea! They put the kettle on and then go and do a bit more work, coming back to the kettle once it's boiled. So efficient! Then they drink their tea *while working*. Do you live like that?

It's great to have a full life, but a life with no breaks isn't good for us, it keeps us in the *doing* mode and is one of the causes of stress.

So this week we invite you to take a 3-minutes break each day – if you wish, take *a few* breaks throughout your day. Can you spare that much time in your busy schedule? (And if the answer to that questions is no, then no wonder you're stressed!). Perhaps if you took more breaks you'd get more done, or your work would be of better quality? When we are constantly on the go we tend to get frazzled, our minds get tired, and we end up paying less attention to the task in hand. Consequently we don't do as good a job as we're capable of. Perhaps taking regular breaks is, in the end, more efficient?

Here are some thoughts that might help you to take more breaks:

*Give yourself permission.* It's interesting that when we ask people to do nothing for a few minutes in our workshops, people often say "It was great to be given permission to do nothing"! So, give yourself permission to do nothing - to take a break from activity - a number of times a day. You'll feel so much better at the end of the day.

*Don't do anything else.* Let go completely of what you've been doing - really let yourself have a break. Stop doing, stop being productive or useful be useless for a little while.

Rest.

*Get away from technology.* If you work with a computer, walk away from it for a little while, turn off your phone, or at least don't answer it. We used to live without these things.

Now we tend to be tyrannised by them.

*Get into your body.* If you're doing some mental work, such as writing or working with a computer, do something with your body. Stand up, stretch, go for a micro-walk, lie down, or simply close your eyes and notice the sensations in your body; the feeling of the soles of your feet on the floor, your hands resting in your lap, your breath flowing in and out.

A structured way to take the **3-Minute Timeout on the Bridge** is:

### 1. Awareness

Bring yourself into the present moment by deliberately adopting an erect and dignified posture. If possible, close your eyes. Then ask: "What is my experience right now ... in thoughts ... in feelings ... and in bodily sensations?" Acknowledge and register your experience, even if it is unwanted.

## **2. Gathering**

Then, gently redirect full attention to breathing, to each inbreath and outbreath as they follow, one after the other. Your breath can function as an anchor to bring you into the present and help you tune into a state of awareness and stillness.

## **3. Expanding**

Expand the field of your awareness around your breathing, so that it includes a sense of the body as a whole, your posture, and facial expression – as your sensory awareness bridge. Notice thoughts coming and going, notice the ‘appealing’ thoughts/images and then choose: will you travel on it ?Will you fight it or will you acknowledge it – pleasant or unpleasant – and let it go (“no need to call my sister right now!”)

## Week 4 – Drive in the right gear: The Three Major Regulation Emotion Systems

Recent neuroscience suggests that humans have three main ways of regulating emotion:

1. **Threat (driving at high speed in reverse or with the handbrake on”)** The emotions involved here are often referred to as ‘fight or flight, freeze and submit’. When we feel threatened, emotions such as fear, anxiety, anger and aggression are aroused. These emotions all feel unpleasant, but they evolved to protect us — for example noticing a car coming towards you as you are about to cross the road and avoiding it. However it can also get over-stimulated or over-used and can lead to chronic anger problems, anxiety disorders and paranoia. When we feel threatened our brain releases the stress hormone *cortisol*, which is useful for short-term defensive behaviour because it mobilises fats, energises the body, and focusses attention. However, if the level of cortisol remains elevated for too long it can damage the immune system and the brain.
2. **Achieving (driving at high speed forward, seeking a buzz! – Entrepreneurs know a thing or two about this one!)** These emotions are to do with getting the good things in life for yourself and your loved ones. In our contemporary world these may be finding a desired partner, an interesting job, a good income, a nice home etc. The emotions of this system feel pleasant

-when we get what we’ve been striving for we feel good. When things are going well and we are moving towards what we want, the brain gives us a boost of *dopamine*. This lets us know that we’re on the right track to prosper. Feeling good ripples through our consciousness. When we have success we want to celebrate - that’s the effect of dopamine.

However, in contemporary life this too can get out of balance leading to unhelpful craving and unsatisfactoriness. Dopamine can become addictive - we want more and more.

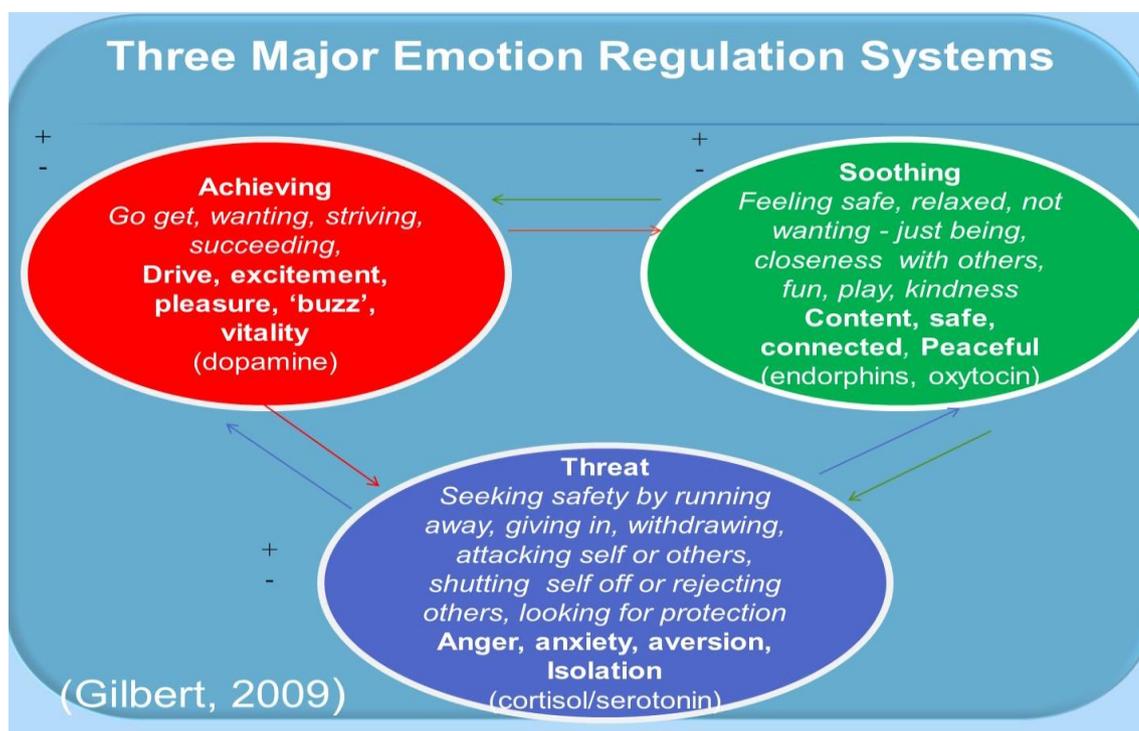
3. **Soothing** The emotions in this system come into play when we are no longer in danger and when we have everything we want. We then feel safe, content and peaceful *endorphins* are released into our body. Contentment is a form of being happy with the way things are and feeling safe; not striving or wanting; an inner peacefulness that is a quite different positive feeling from the hyped-up excitement or ‘striving and succeeding’ feeling of the *achieving* system. It is also different from just low threat which can be associated with boredom or a kind of emptiness.

We experience stress when these three systems are out of balance, especially when the *Threat* and/or the *Achieving* systems continue to be aroused, even though we are not in any real danger or when we already have enough to make us happy. When we habitually feel worried, hassled, rushed, our brains are in the same state of arousal as a man running away from the lion in the jungle! When we’re not stressed out trying to keep up with the demands

of our life we're trying to get some new thing that we hope will make us feel good. It's not that these emotions are bad - we need them to protect us from danger and to motivate us to seek the good things in life - it's just that when they get out of hand they can make us very unhappy.

Our contemporary culture tends to keep us locked into the first two systems and largely neglects the third. The practice of mindfulness helps us to find some balance between these systems, specifically by developing and nurturing the soothing and contentment system.

The soothing emotion system also includes affection, care and kindness - in fact all the emotions that make us feel connected with others. The hormone *oxytocin* is linked to our feelings of social safeness (connectedness) and, with the *endorphins*, give us the feelings of well-being that flow from feeling loved, wanted, and safe with others. We all have this system, and therefore the potential for kindness, however our upbringing or other life experiences may mean that it is under-developed or over-shadowed by habitual use of the other two systems. So by *developing* feelings of kindness we're also lowering our levels of stress.



Neuroscientific studies have shown that practising kindness meditation can lead to beneficial brain changes that may help to re-balance these three systems. But what does this have to do with Entrepreneurs? Was there ever a time when you over-invested or held back too much and that led to a poor business decision? Were you aware of it at the time or did you, in 'hindsight' realise you perhaps either got carried away or held back too much?

Standing in green circle is a way of allowing awareness, connecting with the situation and having the flexibility to use drive or threat when they work but also to step back when they do not.

### **Self-criticism versus Self-kindness**

If someone is very critical of you (always pointing out and dwelling on your mistakes, or telling you that you are no good and that there is no point in you trying anything) your stress hormone - cortisol - will increase. That person's unpleasantness towards you will make you feel anxious, upset or unhappy, because the *threat system* in your brain has been triggered. If their criticism is harsh and constant you will probably feel distressed, unhappy or depressed.

*Our own 'inner critic' can have the same effect.* If you constantly put yourself down this also activates the *threat system* in your brain, making you feel anxious, angry and stressed. Our own thoughts can affect the parts of our brain that give rise to stressful and unpleasant feelings. It can certainly tone down positive feelings. We don't feel joy, happiness, wellbeing or contentment when being criticised. If we develop a self-critical style then we are constantly stimulating our *threat system* and so will feel constantly threatened.

On the other hand, suppose that when things are hard for you and you are struggling, there is someone who cares about you, understands how hard it is, and encourages you with warmth and genuine concern, how does that feel? When someone is kind and understanding, supportive and encouraging towards us, the hormone oxytocin is stimulated and we feel soothed and calmed.

We can also stimulate the *soothing - contentment system* by learning to be kind and supportive to ourselves. If we send ourselves helpful messages when things are hard for us we are more likely to stimulate those parts of the brain that respond to kindness. This will help us cope with stress and set-backs because we are rebalancing the emotional systems in our brain. There is now a lot of evidence that self-kindness and self-compassion (kindness to ourselves when we are suffering) are associated with well-being and the ability to cope with life's stresses.

For people who are very self-critical, the idea of self-kindness can seem like a weakness or an indulgence. They think that their self-critic keeps them up to the mark, that if they were not self-critical they'd make more mistakes, behave badly, be less motivated and more lazy. In short, they believe that if it were not for their inner critic they'd go down the tubes!

Research has shown that this is simply not true. Self-kindness *doesn't* lead to selfishness and self-indulgence. In fact it motivates us to do better. Not by 'beating ourselves up', but by forgiving our mistakes (and who doesn't make mistakes?) and *encouraging* us to improve.

Our brains have been designed by evolution to need and respond positively to kindness. It's not self-indulgence any more than training your body to be fit and healthy is self-indulgent. It's simply a question of treating our brain wisely and feeding it appropriately. This is no different to understanding that our body needs certain vitamins and a balanced diet. We just need to understand how our mind works and then practice how to feed it things to make it work optimally.

### **The difference between self-esteem and self-kindness**

Self-esteem tends to be associated with doing well and achieving, and it's therefore linked to the *drive - achieving system*. It focuses on how well we are doing *in comparison to others*, and this can cause low esteem and feelings of inferiority (when we think others are doing better than us!). Self-kindness, on the other hand, focuses on our similarities and shared humanity with others, who struggle as we do. *Taken and adapted from Training Our Minds in, with and for Compassion. Paul Gilbert. 2010 (From Breathworks Mindfulness for Stress Workbook)*

### **Habit breaker - Spend Some Time in the Green Circle**

The 'green circle' is the soothing system of emotions that we explored in week five of the course (see handout 16 if you're not sure what this is). As we saw then, there are three major emotion systems - the *threat* system (red circle), which is designed to help us avoid danger, the *achieving* system (blue circle), which motivates us to get the good things in life and rewards us when we succeed, and the *soothing* system, which comes into play when we're not in danger and when we've got everything we need right now. At least it *would* come into play if we weren't stuck in one or both of the other two emotion systems. Most people's stress is the result of too much of the red and/or blue circles. This course is designed to redress that imbalance and help you to spend more time in the green circle.

The emotions in this system are contentment, serenity, satisfaction, absorption in an activity, equanimity, appreciation, relaxation, fun, playfulness, wonder, affection, empathy, kindness (both giving and receiving), love and compassion. The green circle is the

*being mode* of mind, whereas the red and blue circles are aspects of the *doing mode* of mind. The green circle is also the place where creativity most commonly occurs, because it allows us to step out of habitual ways of reacting to things and people and to look at them afresh.

So this week you're invited to spend some time in the green circle every day. There are so many ways of doing this, here are just a few examples:

- stop every now and then and appreciate the world around you - the sky perhaps, or a bowl of fruit, the colour of the tie that someone's wearing...
- when you're talking to someone - a friend, family member, colleague, stranger - try to *connect* with them as another human being; try to give them your whole attention; really *listen* to them; be *interested* in what they're saying
- have some fun. This could be taking time out of your day to do a specific fun activity, or it could be just making sure you have some fun in your ordinary daily activities. Be playful. Take things a little less seriously
- do something that absorbs your attention. Something that makes you concentrate on a task to the exclusion of all other concerns. Something that causes you to be in the present moment. This could be a work task or something that you'd do at home or elsewhere. This is why people have hobbies!
- commit random acts of kindness! Do something nice for someone. Buy the Big Issue from a licensed seller and, if you have the time, stop and chat to them for a while. Offer to make tea for someone who seems to be under some pressure. Buy a small gift for someone you like or love. The effect of such small acts of kindness can be amazing!
- spend some time with a friend
- go to the gym and make sure you give yourself plenty of time to enjoy the sauna, jacuzzi and shower after your workout
- tell someone you love that you love them

There are a thousand other ways of entering the green circle so don't confine yourself to the above examples. Be creative! Enjoy yourself.

## **Kindness**

### **What is meant by kindness?**

Kindness is an attitude of care and concern for the well-being of both ourselves and other people. It's important that it's both. Being 'kind' to others but not to ourselves or being 'kind' to ourselves' but not to others is not real kindness (although either may be a starting point for cultivating kindness in a fuller sense). Kindness includes sympathy or concern for our own and others well-being, plus a willingness to act on that concern. Thus kindness includes both feeling with understanding, and action based on that understanding. This means that real kindness is neither weak nor stupid. To be truly kind means to understand what is going on and have the courage to act on that understanding.

In its purest form, kindness to self may be synonymous to 'allowing': allowing oneself to be, allowing oneself a breadth, allowing oneself a gesture of self-directed kindness, and acceptance.

Thirdly, apparent kindness can be disguised manipulation. This is not to say that we should expect to always have pure, unselfish motivation. Acting with kindness is likely to have all sorts of benefits for us, such as feeling happier and being liked by others, and our awareness of that should not stop us from acting with kindness. We can simultaneously want the best for ourselves and the best for others, and kindness can help with both. However this is different from a deliberate ingratiation where we are only in it for what we can get. Usually we can feel the difference. The 'kindness' doesn't ring true.

## **Week 5 – Let in the good by feeding the ‘love wolf’: The Negativity Bias**

Millions of years ago, when we were living in caves, with predators and rival huntergatherer tribes roaming close by, it was crucial that we were alert to any dangers. If we didn't do this, we'd be dead. Perhaps the human race wouldn't have survived. So our brains have evolved to look out for any potential threats to our safety. Our brains still perform this function, even though real dangers to our lives are rare. Consequently we have what neuro-psychologists call a *negativity bias* - we notice the negative, the faults in a situation, the potential threats to our wellbeing, much more readily than we notice the positive. Specifically, we tend to overestimate threats, underestimate opportunities, and underestimate resources (for dealing with threats and fulfilling opportunities).

What's more, when we notice the negative, it immediately gets stored in memory, whereas any positive experiences need to be held in awareness for a dozen or more seconds to transfer from short-term memory buffers to long-term storage. The neuro-psychologist Dr Rick Hanson therefore says that the brain is "like Velcro for negative experiences but Teflon for positive ones".

While this is good news from the point of view of our survival, it's bad news when it comes to our sense of wellbeing, tranquillity and happiness. It's hard to relax and enjoy yourself when you are looking out for potential dangers. Imagine trying to enjoy yourself at a party if you felt that someone there wanted to harm you!

Our brain evolved in the way it did to make sure the human race survived. It didn't evolve to make us happy! So we need to work against this hard-wired negativity bias. We do this by turning our attention, as much as we are able, to the positive - the good things that happen, the pleasant experiences. This is not looking at the world through rose-tinted glasses. We're simply levelling the playing field, getting a more balanced view of our situation. Don't worry, when danger threatens you will still notice it and be able to react appropriately, you just won't be so hyper-vigilant and wary all the time.

### **Habit breaker - Let in the Good**

This exercise comes from Rick Hanson's book *Just One Thing*. It has three parts.

#### **1. Notice a positive experience**

This will probably be something quite ordinary, such as someone smiling at you briefly as they pass, the sun shining on your desk as you work, or a memory of something good that happened at the weekend. Most positive experiences are quite ordinary and relatively minor - but they are still real! We have many of these experiences every day, but they often come and go unnoticed.

Now, whether it's something happening right now or a remembered experience, allow yourself to feel the pleasure of it. Let yourself *feel* good about it. Let it affect you.

Notice any reluctance you might feel to doing this - perhaps a sense that you don't have time, or that you don't deserve it, or that it's selfish, or that if you allowed yourself to enjoy the pleasure of these small things, you'd somehow let your guard down and allow bad things to happen.

Then turn back towards the positive experience, keep opening to it, breathing into it, enjoying it.

## **2. Stay with the experience**

Now stay with the experience for ten, twenty, even thirty seconds. Try not to get distracted by something else. If you do get distracted, simply return to the experience. Allow yourself to really enjoy it. Soften and open around the experience; let it fill your mind; give over to it in your body.

The longer that you keep it in your awareness and the more emotionally stimulating it is, the stronger the trace in implicit memory.

## **3. Absorb the experience**

Now allow the experience to sink into you. You do this simply by staying with the experience and allowing yourself to feel it. Rather as you might on a cold day when the sun suddenly comes out, and you allow the sun to warm the whole of you, inside as well as out. Or if you were to drink a cup of hot chocolate on a cold wintry day, and you feel the warmth suffusing through you. It might help you to know that while this positive experience is held in awareness, its related neural networks are busily firing and wiring together. Try to do this a number of times a day. It doesn't take long - ten, twenty, even thirty seconds each time. You

are not trying to cling to positive experiences. That would cause tension and would probably lead to disappointment. Actually you are doing the opposite: by taking them in, you will feel better fed inside, and less fragile or needy. Your happiness will become more unconditional, increasingly based on an inner fullness rather than on external conditions.

## Week 6 – Avoid crash and Burn

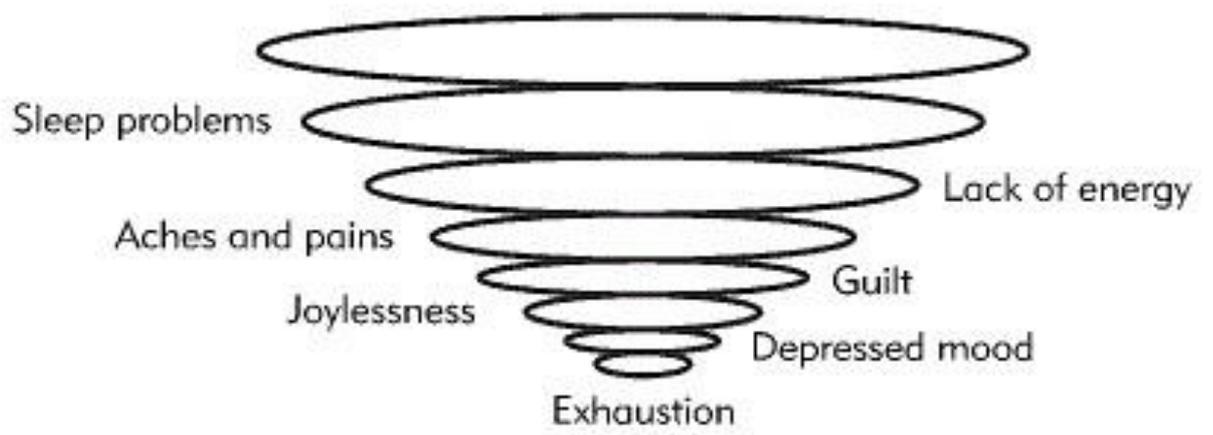
### The Exhaustion Funnel

You probably know the syndrome: your life is going OK until something happens - you get overloaded at work, a family member falls ill, you fall out with someone - and you feel stressed. So, you think, “I can’t do everything I usually do this week, something will have to go”. But what? Usually the first thing we drop is something that isn’t essential, something that won’t entail letting others down very badly: going to the gym, listening to music, seeing a friend, watching a film, reading a book. Something, in other words, that we enjoy, that nourishes us, and that makes us feel glad to be alive.

By the end of the week we feel a little more stressed because we didn’t do one of the things that helps to keep us nourished, although we *did* continue to do all those things that deplete us and make us feel stressed. So we feel that something else is going to have to go this week. What? Something else that we enjoy, and that won’t let others down very much. As a result, by the end of that week we feel even more depleted - something else has got to go ... you can see where this is going can’t you?

The above diagram comes from Professor Marie Asberg, of the Karolinska Institute, Stockholm.. The top ring of the funnel shows a full life, with work, family, friends, hobbies, interests, etc. The bottom ring is a life that has been stripped down to merely doing those things we have to do to keep alive - work, cleaning, food shopping etc. Professor Asberg suggests that those of us who continue down the exhaustion funnel are likely to be the most conscientious workers, whose level of self-confidence is closely dependent on their performance at work, and who are often seen as the best workers, not the lazy ones. Although she refers to ‘performance at work’ and ‘workers’, it’s easy to see that this syndrome can also apply to other situations, such as family and friends.

Take some time to think about all the things that sustain you - activities that you enjoy and that are life-enhancing. Write them down in the left hand column. Now consider all the things in your life that tend to drain your energy - that you don’t enjoy and that deplete your energy. Write them down in the right hand column.



**Sustainers**

**Drainers**

Now that you've done that you can reflect a little on your life - do the 'sustainers' outweigh 'drainers' or vice versa? Of course figuring that out is not a simple matter of adding the numbers up - you may have listed more drainers than sustainers, for instance, but the drainers may take up much less of your time. It's more a matter of intuition - do you *feel* that your life has enough enjoyment and satisfaction? If not, are there ways in which you can reduce the drainers and increase the sustainers? Are there things in your sustainers list that you no longer do, or haven't done for a while? If so, can you bring them back in to your life? Or can you turn a drainer into a sustainer? If you, for instance, dislike housework, can you find a way to make it enjoyable?

## **Habit breaker - Choose a Healthy Sustainer**

The 'green circle' is the soothing system of emotions that we explored in week four of the course. As we saw then, there are three major emotion systems - the *threat* system (red circle), which is designed to help us avoid danger, the *achieving* system (blue circle), which motivates us to get the good things in life and rewards us when we succeed, and the *soothing* system, which comes into play when we're not in danger and when we've got everything we need right now. At least it *would* come into play if we weren't stuck in one or both of the other two emotion systems. Most people's stress is the result of too much of the red and/or blue circles. This course is designed to redress that imbalance and help you to spend more time in the green circle.

We know we default usually to negativity bias and spending time in the green circle, with kindness and gentleness allows us to pump the right nutritional chemicals (endorphins and oxytocin\_) through our system. In addition, 'feeding the love wolf', developing kindness therefore shrinking the negativity bias may allow us to see more opportunity for being instead of fighting.

- So this week, with that intention, you're invited to spend some time adding a pinch of 'love wolf' and 'taking in the good' by picking a sustainer and ALLOWING YOURSELF to engage in it – no matter how small or simple. That may be anything from your list of sustainers today

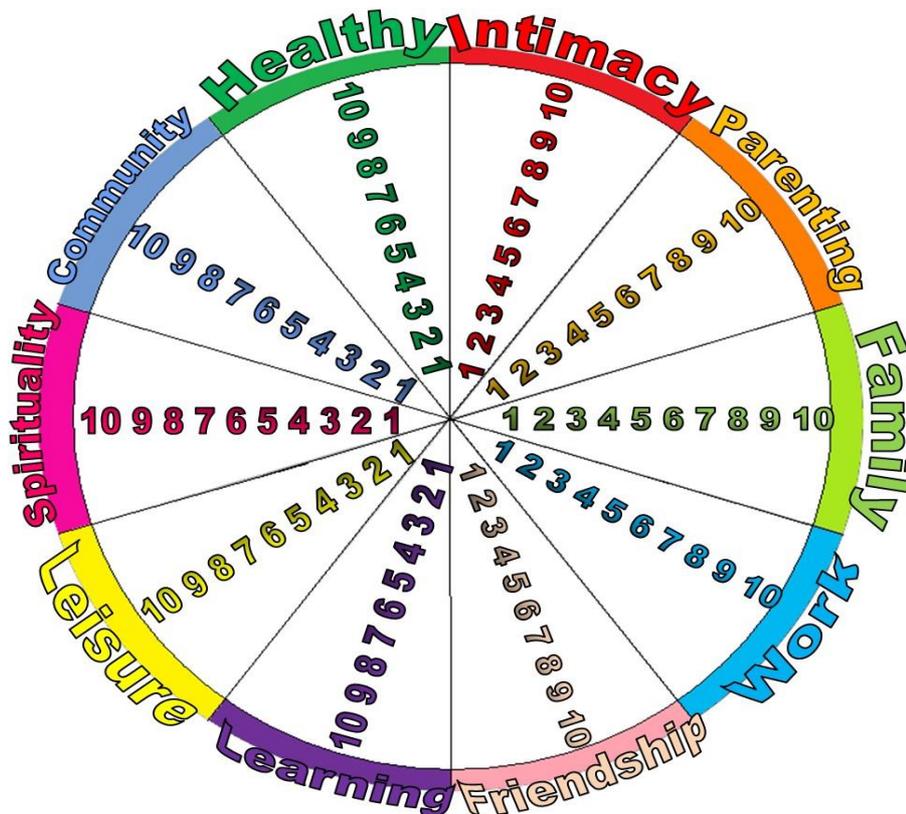
## Week 7 – Life nutrition

### Marmite or Sprouts? What will you have on your ‘Capricciosa’ Pizza?

One way to think about a healthy ‘life recipe’ is to think in these terms: If you had *free and unrestricted choice* (there was no consequence to you, others, you would feel liberated and totally nourished, you wouldn’t worry about beating yourself up with guilt, failure or equally you wouldn’t indulge in excessive self-praise and fantasy - and have a valued life) how important would each potential ‘ingredient’ (i.e. each potentially nourishing area of life) be to you?

**Be careful:** nourishing doesn’t just mean pleasant or pleasure. Sometimes, just like Marmite (you hate or love something) and sprouts (we know are good for you but you may not necessarily like them), having a ‘nourishing set of life ingredients’ doesn’t mean just feeling good. It means feeling nourished and feeling that what you do is worthwhile, connecting and you love it!

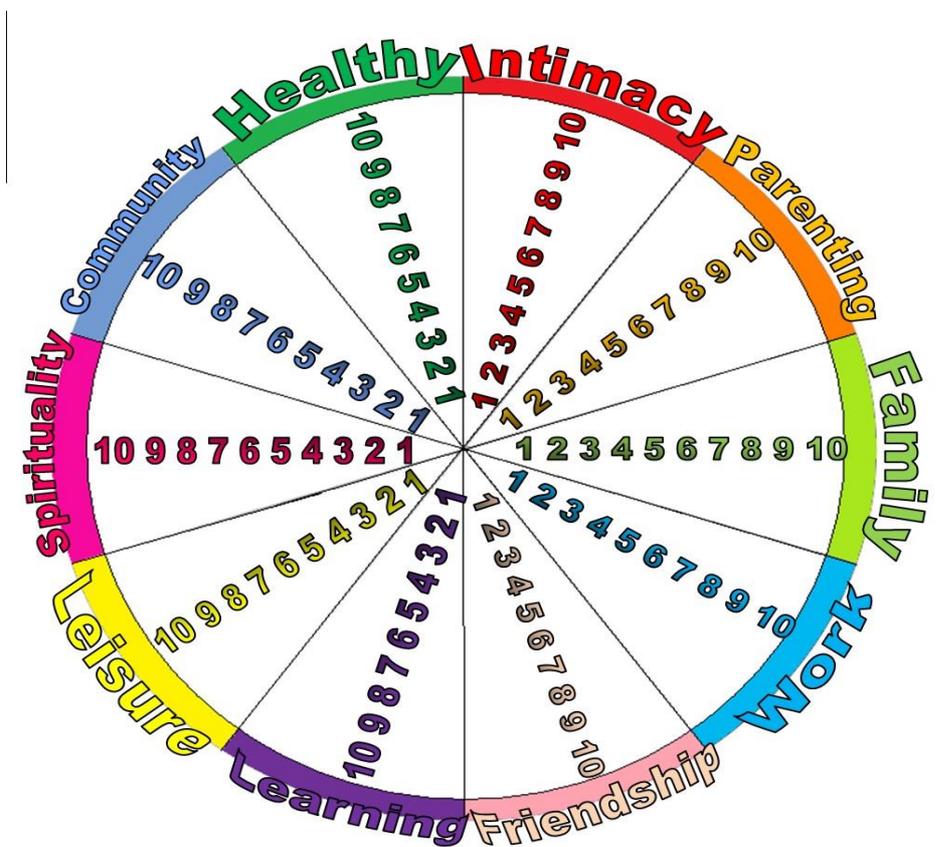
So, if you had a nourishing, happily challenging wish for life ingredients, how important would you rate them – **regardless of what you are doing now?** (on a scale of 1-10 where 1 = “I couldn’t care less” and 10 = “this life ingredient would be extremely important”) ‘Capricciosa’ means ‘fussy’ in Italian. So if you could be fussy and choose, how would you rate your ‘Capricciosa’ Pizza ‘life recipe’?



And how close to your 'ideal capricciosa' recipe have you been in the past couple of weeks, compared with where you want to be? Have you gorged on one ingredient and neglected others? If so, what are they? In other words,

- 1) how aware have you been of how important the various 'ingredients' are and
- 2) How much do you feel your recent actions have been in line with what's most important to you?

What shows up for you as you notice the gaps (guilt, anger, frustration?). can you stay gentle with what shows up? It may be 'sprouts' (unpleasant if you don't like them) but it may be that 'sprouts' may have been burning on the backburner. If you stay aware of any unpleasantness linked with them, how might that inform a change of direction? What might that be?



## **Habit breaker - Choose to Respond Rather than React**

All the practices you've learned on this course have been chosen to give you more choice. Just consider all the Small Things you've been encouraged to try each week: Choosing to do something mindfully rather than without awareness, choosing to do something slowly rather than habitually quickly, choosing to take breaks, choosing to accept something difficult, choosing to notice and take in the good things that happen, choosing to hold everything that happens within a wider perspective. We can't always choose what happens to us or how other people behave, but we *can* learn to have more choice in how we respond to life's events. In essence, what this means is that we can learn to respond rather than react.

When we react to people or situations or things that happen to us, we enter the red circle - the threat / self-protection system. Our brain activates the same fight or flight (or freeze) reaction that our ancestors felt when threatened by a sabre-toothed tiger. When we respond we enter the green circle. Wider, broader, calmer, more creative, warmer, more affectionate.

The next time you feel your buttons being pressed, see if you can step back from your reaction, take a few seconds to breathe, and let it go. This isn't easy. Depending on the strength of your reaction, sometimes you'll be able to do it, other times you won't. That's OK - it's a *practice*. If you found it easy you wouldn't need to practice it. And those times (there will be many) when you *don't* manage to let go of your reaction, you need to be careful you don't react to your failure ("You idiot, you've failed again" etc.). Be careful that your inner critic doesn't have a field day. Instead, just remind yourself that your brain, like everyone else's, is wired like that. It's evolved to react to threats with anger, fear, avoidance etc, and so it's natural to react. Portia nelson's poem Autobiography in Five Short Chapters brilliantly describes the failures we all experience in trying to let go of our habitual reactions and choosing to respond.

All the meditations you've learned on this course will help you to build up inner resources of awareness, calm, clarity, kindness, that will help you to let go of the reactive mode and develop the responsive mode. So in the long term, keep these up as best you can.

## **Habit breaker- Accept a Difficult Experience**

No matter how hard we try to avoid difficult experiences, it's not possible to avoid them altogether. Every life is full of difficult, uncomfortable, unpleasant, even painful experiences, as

well as easy, comfortable, pleasant and lovely ones. The art of living well doesn't consist in trying to banish the difficult and admit only the pleasant and easy, but in learning how to respond, rather than react, to the inevitable ups and downs that life throws our way.

This week's Small Thing is to see if you can be with a difficult situation and accept it (by leaning into it gently as for the Chinese finger traps), rather than fight against it. It's probably best to start practising with something relatively mild - being caught in a traffic jam or stuck on a late train, having to do something you'd rather not have to do, being irritated with someone's behaviour, walking in the rain (if you don't like rain). Once you've had some practice in being with relatively mild experiences you can move onto more difficult ones.

Acceptance doesn't mean merely putting up with, or resignation, or even stoic endurance. It's more positive than any of these. It's also more active. Acceptance comes from the Latin *capere*, which means to touch. When you go into a clothes shop and you see something that you like the look of - let's say a top or a shirt - what is the next thing you do (perhaps after looking at the price tag)? Probably you touch it. You find out what it *feels* like. This gets close to what we mean by acceptance - a willingness to *have* the experience, to *feel* it.

It's natural to turn away from difficult experiences, to harden ourselves against them, to protect ourselves from them. While this can be a good strategy for some things, if this is our default position we will tend to become hardened to life - unfortunately, all of it. Because it's not possible to harden ourselves *only* against the unpleasant. When we harden ourselves against the unpleasant we harden ourselves against the good things too - joy, affection, beauty, love. Accepting a stressful experience, means to *touch* it, feel its texture, its roughness, its discomfort. If you can learn to do this, you'll probably notice that you're experiencing the good things in life more fully, more vividly, too.

Learning how to accept difficult experiences strengthens our stress tolerance - that is, we learn how to experience them without our buttons being pressed. Rather, we are able to be with difficult situations and emotions in a calm, strong, mature way, instead of reacting to them. Notice that stress tolerance is the ability to *experience* stressful situations without reacting to them. It's doesn't consist in *hardening against* them. People with a high degree of stress tolerance *feel* the discomfort, but they let it flow through them.

The next time you find yourself in a stressful situation, first of all, simply notice that it's happening, and that *it's unpleasant*. Where do you feel the unpleasantness? In your head, stomach, chest, arms or legs? Or somewhere else? See if you can *be with the unpleasant sensations* without reacting.

Acknowledge that it's difficult, that it's an experience of suffering. You might even say to yourself "This is a moment of suffering". Try not to beat yourself up about it, but try instead to treat yourself as you would a friend or loved one who is having a hard time. Kindly, considerately, gently. After all, you're doing something difficult.

Using the breath can help. Take your attention to it, especially as you feel it lower down in your body. Feel your abdomen swelling and subsiding. You can imagine *breathing into* the unpleasant experience, and on the out-breath, see if you can let go of your resistance to what's happening. Try to *allow* the difficult situation to simply be there, just as it is, without you needing to do anything about it. See if you can hold it in your attention, in a soft, gentle, calm way. Breathing in the experience, breathing out the resistance. Breathing in the discomfort, breathing out kindness to yourself.

## Week 8 – Nourishing resilience via Mindful Competence

Next we want just to spend a few words talking about Mindful Competence. Blunt as it might be, the next paragraphs are meant to be humorously intended invite to notice:

Today we are going to recap on concepts and bring it all together with a final Life Recipe based on your current needs.

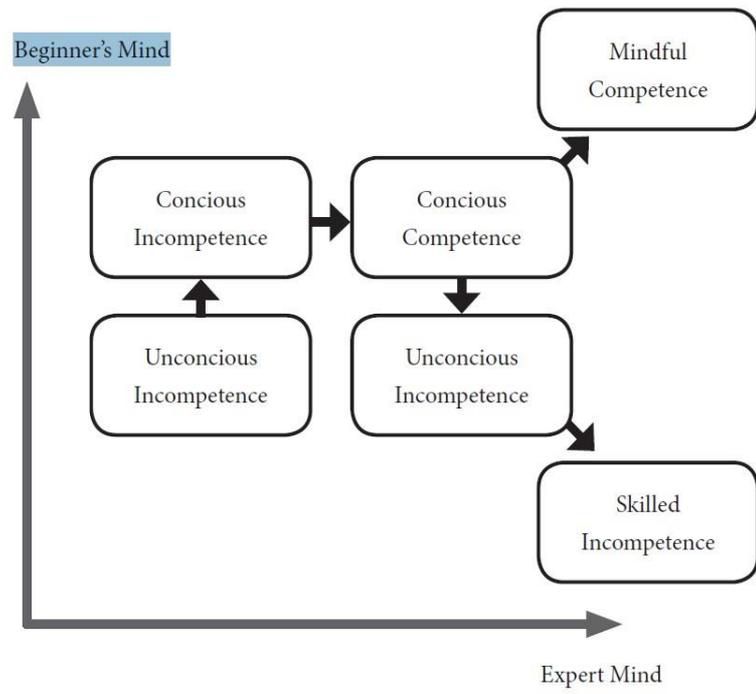
Before we do that, it is helpful to bring together the idea that mindfulness may help us staying flexible between Beginner's mind (when we switch between knowing what we don't know and also not knowing things we don't know). This evolves, thorough practice in what we challenge ourselves with, to become consciously competent (knowing that 'we do know') about certain things. However, there is paradox in this because, as we become specialised in certain knowledge, we devote less time in staying aware (consciously incompetent) about things we don't know. This leads us to become really (habitually) good at certain things but unconsciously less aware (unconsciously incompetence) about our weaknesses.

If, therefore, we can make an effort to stay aware of and look out for areas of incompetence, this will emerge from unconscious, to conscious – that is uncomfortable however, and there will be a tendency of 'getting really good' at what we are 'really good at', which can make us feel skilled but, paradoxically, make us become more incompetent.

The alternative is, to seek, listen to, discover and stay aware of our areas of 'incompetence/neglect' (a bit like the ones highlighted in your 'capricciosa' pizza – so just like a life 'nutrition plan', we can be aware of both what we can and also what we cannot do (mindful competence) and allowing our discomfort to guide us to make valued-based choices.

Of course, nothing we have to do -= we can go back, each of us to be the 'best and only entrepreneur in the world' (...but wouldn't that mean only one person in the room really fulfils the criteria?) and forget about anything we ever did in the past 8 weeks (can you guess where that might lead us?)

Adapted from Mindfulness Based life-enhancement (Darwin, 2014 p.17)



**Your own unique Life Nutrition and Mindful Competence Recipe:**

## What's Next?

So we come to the end of the course. I hope you enjoyed it, and I especially hope that you are managing your stress better than you were when you began the course.

If that is the case then please remember that it only worked because you practiced what you learned at the classes. And if you want to keep your stress levels down to a manageable level, or to put it more positively, to live with equanimity, or even more positively, to flourish and be happy, then you need to keep on practising. It's really as simple as that.

So the question arises – how will you make sure you continue to practice? If you found it hard to keep practising during the course, the chances are that you'll find it very hard indeed to continue now that the course has ended. You'll probably need some back-up.

One thing you can do is try find a meditation group near you, preferably that meets regularly to meditate, so that you can join them. You'll need to make sure that you'll be able to continue with the mindful meditations that you've learned on the stress course – some groups insist that you only practice the specific meditations that they do.

Otherwise, you may choose to consider introducing mindfulness in your organisation and there are a number of ways that can be achieved. Please ask and we would be happy to support you with it.

### **Some things to remember:**

Respond, don't react Some suffering is unavoidable, other suffering is optional We can only *accept* the unavoidable, but we can *reduce* the avoidable You don't have to believe everything you think When it comes to inner change, if you want to get from A to B, you have to really be at A We have an inbuilt negativity bias, so make sure you notice the positive as well When it comes to practice, you don't have to like it, you just have to do it.

### **Some things to do:**

When possible, do just one thing at a time Pay full attention to what you are doing When the mind wanders from what you are doing, bring it back Be kind to yourself, and to others Let in the good Repeat the above several billion times Continue to do the practices that have worked for you on the course If you stop doing them (likely!) just start again.

Check out regularly what 'ingredients' you have and those you are lacking from your ideal 'pizza of life' and re-set direction! This is extremely important particularly when getting real

busy with a project, focussing your energy on enterprise alone, networking, investing – which can throw the balance of healthy life ingredients out of sink!

Finally, there is nowhere to get- like dieting or exercising is a process of growing, learning and discovering;

### **Some books to read:**

Here are a few books that are relevant to what we've done on this course, which you might want to follow up.

*Mindfulness for Health: Relieving Pain, Reducing Stress and Restoring Well being* - Vidyamala Burch and Danny Penman. Piatkus.

*Mindfulness: A Practical Guide to Finding Peace in a Frantic World* - Mark Williams and Danny Penman. Piatkus *Full Catastrophe Living* – Jon Kabat-Zinn. Piatkus *Love 2.0 - How our Supreme*

*Emotion Affects Everything We Feel, Think, Do, and Become*

-Barbara L. Fredrickson. Hudson Street Press

*The Compassionate Mind* – Paul Gilbert. Constable *The Mindful Path of Self-Compassion* -

Christopher K. Germer. Guilford Press *Just One Thing - Developing a Buddha Brain One Simple Practice at a Time* - Rick

- Hanson. New Harbinger Publications. *Hardwiring Happiness: The Practical Science of Reshaping Your Brain - and Your Life* -Rick Hanson. Rider.
- Chaskalson, M. (2011). *The Mindful Workplace: Developing Resilient Individual and Resonant Organisations with MBSR*. Southern Gate, Chichester: Wiley-Blackwell
- Burch, V. & Penman, D. (2013). *Mindfulness for Health: A practical guide to relieving pain, reducing stress and restoring wellbeing*. London: Piatkus Books
- Germer, C. *The mindful path to self-compassion. Freeing Yourself from Destructive Thoughts and Emotions*. New York: Guilford Press
- Kabat-Zinn J. (2013). *Full Catastrophe Living (Revised Edition): How to cope with Stress, Pain, and Illness using Mindfulness Meditation*.



**Appendix 2: Practice Diary**

Mindfulness for Entrepreneurs

Practice Diary (will be collected weekly)

Name: \_\_\_\_\_

## **Instructions**

As your day comes to a close, record as accurately as possible:

### **Mindfulness Workout**

Have you completed any mindfulness practice within this day? Have you practiced any of the technique/s listed? **Yes/No answer**

### **Habit breaker**

Have you completed any habit breaker practice within this day? Have you practiced any the strategy listed? **Yes/No answer**

### **Duration of practice**

What was the total duration? **Give a total time in minutes**

### **Significant event/s**

**A descriptive account is requested here. If no significant event just write n/a**

As u look back on the day, did any significant event/s take place?

- In what ways was this day unique, different from other days?
- Did I have any particularly meaningful conversations?
- How did I feel during the day? What were the emotional highs and lows? Why did I feel as I did? Did I find myself worrying about anything today?
- What were the chief joys of the day? What did I accomplish? Did I fail at anything? What can I learn from this? What did I learn today?

# Week 1

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Body scan, breathing		Daily activity	Observation comments
Sun	Body scan Breathing	Yes/No Yes/No	Yes/No	
Mon	Body scan Breathing	Yes/No Yes/No	Yes/No	
Tues	Body scan Breathing	Yes/No Yes/No	Yes/No	
Wed	Body scan Breathing	Yes/No Yes/No	Yes/No	

Thurs	Body scan Breathing	Yes/No Yes/No	Yes/No	
Fri	Body scan Breathing	Yes/No Yes/No	Yes/No	
Sat	Body scan Breathing	Yes/No Yes/No	Yes/No	

## Week 2

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Body Scan, Listening	Breathing,	Take 1 breath	Observation comments
Sun	Body scan Breathing Listening	Yes/No Yes/No Yes/No	Yes/No	
Mon	Body scan Breathing Listening	Yes/No Yes/No Yes/No	Yes/No	
Tues	Body scan Breathing Listening	Yes/No Yes/No Yes/No	Yes/No	

Wed	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Listening	Yes/No		
Thurs	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Listening	Yes/No		
Fri	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Listening	Yes/No		
Sat	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Listening	Yes/No		

## Week 3

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Movement, Working with thoughts Breathing		Choose a thought	Observation comments
Sun	Movement Thoughts Breathing	Yes/No Yes/No Yes/No	Yes/No	
Mon	Movement Thoughts Breathing	Yes/No Yes/No Yes/No	Yes/No	
Tues	Movement Thoughts Breathing	Yes/No Yes/No Yes/No	Yes/No	

Wed	Movement Thoughts Breathing	Yes/No Yes/No Yes/No	Yes/No	
Thurs	Movement Thoughts Breathing	Yes/No Yes/No Yes/No	Yes/No	
Fri	Movement Thoughts Breathing	Yes/No Yes/No Yes/No	Yes/No	
Sat	Movement Thoughts Breathing	Yes/No Yes/No Yes/No	Yes/No	

## Week 4

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Body Scan Movement	Breathing	Do something in neutral	Observation comments
Sun	Body scan Breathing Movement	Yes/No Yes/No Yes/No	Yes/No	
Mon	Body scan Breathing Movement	Yes/No Yes/No Yes/No	Yes/No	
Tues	Body scan Breathing Movement	Yes/No Yes/No Yes/No	Yes/No	

Wed	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Movement	Yes/No		
Thurs	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Movement	Yes/No		
Fri	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Movement	Yes/No		
Sat	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		
	Movement	Yes/No		

## Week 5

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Body Scan / Mindfulness Breathing		Letting in the good	Observation comments
Sun	Body scan Breathing	Yes/No Yes/No	Yes/No	
Mon	Body scan Breathing	Yes/No Yes/No	Yes/No	
Tues	Body scan Breathing	Yes/No Yes/No	Yes/No	
Wed	Body scan Breathing	Yes/No Yes/No	Yes/No	
Thurs	Body scan Breathing	Yes/No Yes/No	Yes/No	
Fri	Body scan Breathing	Yes/No Yes/No	Yes/No	
Sat	Body scan Breathing	Yes/No Yes/No	Yes/No	

## Week 6

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Body Scan / Mindfulness Breathing		Spending time in the green circle	Observation comments
Sun	Body scan Breathing	Yes/No Yes/No	Yes/No	
Mon	Body scan Breathing	Yes/No Yes/No	Yes/No	
Tues	Body scan Breathing	Yes/No Yes/No	Yes/No	
Wed	Body scan Breathing	Yes/No Yes/No	Yes/No	
Thurs	Body scan Breathing	Yes/No Yes/No	Yes/No	
Fri	Body scan Breathing	Yes/No Yes/No	Yes/No	
Sat	Body scan Breathing	Yes/No Yes/No	Yes/No	

## Week 7

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Body scan/ mindfulness Breathing		?	Observation comments
Sun	Body scan Breathing	Yes/No Yes/No	Yes/No	
Mon	Body scan Breathing	Yes/No Yes/No	Yes/No	
Tues	Body scan Breathing	Yes/No Yes/No	Yes/No	
Wed	Body scan Breathing	Yes/No Yes/No	Yes/No	
Thurs	Body scan Breathing	Yes/No Yes/No	Yes/No	
Fri	Body scan Breathing	Yes/No Yes/No	Yes/No	
Sat	Body scan Breathing	Yes/No Yes/No	Yes/No	

## Week 8

Day	Mindfulness workout		Habit breaker	Duration of practice? Significant event?
	Body scan/ mindfulness Breathing		?	Observation comments
Sun	Body scan Breathing	Yes/No Yes/No	Yes/No	
Mon	Body scan Breathing	Yes/No Yes/No	Yes/No	
Tues	Body scan Breathing	Yes/No Yes/No	Yes/No	
Wed	Body scan Breathing	Yes/No Yes/No	Yes/No	
Thurs	Body scan Breathing	Yes/No Yes/No	Yes/No	
Fri	Body scan Breathing	Yes/No Yes/No	Yes/No	

Sat	Body scan	Yes/No	Yes/No	
	Breathing	Yes/No		

**Appendix 3: Questionnaire pack: wk1, 4, 8, 12 and 3 months FU  
(page 1)**

**Questionnaire Pack: Mindfulness and the development of resilience**

Title: Mr / Mrs /Miss/ Other:

Name: \_\_\_\_\_

ID number \_\_\_\_\_

Age: \_\_\_\_\_

Gender: \_\_\_\_\_

Country of Origin: \_\_\_\_\_

Highest Educational attainment: \_\_\_\_\_

Marital status: \_\_\_\_\_

No of repeat assessments: \_\_\_\_\_

Serial/First time or Would be entrepreneur (please circle)

Today's Date: \_\_\_\_\_

Please complete all sections of this pack. It helps us to evaluate the course, and could help us to obtain funding in the future. Please answer all the questions, even if you don't find them relevant personally. This will enable us to score the questionnaire accurately. Please read each question carefully, but do not spend too much time on each question. There are no right or wrong answers to the questions – your answer will depend on how you are feeling. The information that you provide in this form is confidential. It will only be seen by the research team undertaking the study.

Please ensure that you have completed all sections

## Appendix 3: Questionnaire pack (page 2)

### Connor-Davidson Resilience Scale 25 (CD-RISC-25)

initials  ID#  date  visit  age

For each item, please mark an "x" in the box below that best indicates how much you agree with the following statements as they apply to you over the last **month**. If a particular situation has not occurred recently, answer according to how you think you would have felt.

	not true at all (0)	rarely true (1)	sometimes true (2)	often true (3)	true nearly all the time (4)
1. I am able to adapt when changes occur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I have at least one close and secure relationship that helps me when I am stressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. When there are no clear solutions to my problems, sometimes fate or God can help.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I can deal with whatever comes my way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Past successes give me confidence in dealing with new challenges and difficulties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I try to see the humorous side of things when I am faced with problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Having to cope with stress can make me stronger.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I tend to bounce back after illness, injury, or other hardships.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Good or bad, I believe that most things happen for a reason.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I give my best effort no matter what the outcome may be.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I believe I can achieve my goals, even if there are obstacles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Even when things look hopeless, I don't give up.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. During times of stress/crisis, I know where to turn for help.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Under pressure, I stay focused and think clearly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I prefer to take the lead in solving problems rather than letting others make all the decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I am not easily discouraged by failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I think of myself as a strong person when dealing with life's challenges and difficulties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I can make unpopular or difficult decisions that affect other people, if it is necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. In dealing with life's problems, sometimes you have to act on a hunch without knowing why.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I have a strong sense of purpose in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I feel in control of my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I like challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I work to attain my goals no matter what roadblocks I encounter along the way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. I take pride in my achievements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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01-01-13

## Appendix 3: Questionnaire pack (page 3)

### Five Facet Mindfulness Questionnaire

#### Description:

This instrument is based on a factor analytic study of five independently developed mindfulness questionnaires. The analysis yielded five factors that appear to represent elements of mindfulness as it is currently conceptualized. The five facets are observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience. More information is available in:

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

- \_\_\_ 1. When I'm walking, I deliberately notice the sensations of my body moving.
- \_\_\_ 2. I'm good at finding words to describe my feelings.
- \_\_\_ 3. I criticize myself for having irrational or inappropriate emotions.
- \_\_\_ 4. I perceive my feelings and emotions without having to react to them.
- \_\_\_ 5. When I do things, my mind wanders off and I'm easily distracted.
- \_\_\_ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.
- \_\_\_ 7. I can easily put my beliefs, opinions, and expectations into words.
- \_\_\_ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.
- \_\_\_ 9. I watch my feelings without getting lost in them.
- \_\_\_ 10. I tell myself I shouldn't be feeling the way I'm feeling.
- \_\_\_ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
- \_\_\_ 12. It's hard for me to find the words to describe what I'm thinking.
- \_\_\_ 13. I am easily distracted.
- \_\_\_ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.

### Appendix 3: Questionnaire pack (page 4)

- \_\_\_\_\_ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.
- \_\_\_\_\_ 16. I have trouble thinking of the right words to express how I feel about things
- \_\_\_\_\_ 17. I make judgments about whether my thoughts are good or bad.
- \_\_\_\_\_ 18. I find it difficult to stay focused on what's happening in the present.
- \_\_\_\_\_ 19. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
- \_\_\_\_\_ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
- \_\_\_\_\_ 21. In difficult situations, I can pause without immediately reacting.
- \_\_\_\_\_ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.
- \_\_\_\_\_ 23. It seems I am "running on automatic" without much awareness of what I'm doing.
- \_\_\_\_\_ 24. When I have distressing thoughts or images, I feel calm soon after.
- \_\_\_\_\_ 25. I tell myself that I shouldn't be thinking the way I'm thinking.
- \_\_\_\_\_ 26. I notice the smells and aromas of things.
- \_\_\_\_\_ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.
- \_\_\_\_\_ 28. I rush through activities without being really attentive to them.
- \_\_\_\_\_ 29. When I have distressing thoughts or images I am able just to notice them without reacting.
- \_\_\_\_\_ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
- \_\_\_\_\_ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
- \_\_\_\_\_ 32. My natural tendency is to put my experiences into words.
- \_\_\_\_\_ 33. When I have distressing thoughts or images, I just notice them and let them go.
- \_\_\_\_\_ 34. I do jobs or tasks automatically without being aware of what I'm doing.
- \_\_\_\_\_ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.
- \_\_\_\_\_ 36. I pay attention to how my emotions affect my thoughts and behavior.
- \_\_\_\_\_ 37. I can usually describe how I feel at the moment in considerable detail.
- \_\_\_\_\_ 38. I find myself doing things without paying attention.
- \_\_\_\_\_ 39. I disapprove of myself when I have irrational ideas.

## Appendix 3: Questionnaire pack (page 5)

### Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

Name \_\_\_\_\_ Date \_\_\_\_\_

Age \_\_\_\_\_ Gender (Circle): **M** **F** Other \_\_\_\_\_

**0 = Never    1 = Almost Never    2 = Sometimes    3 = Fairly Often    4 = Very Often**

1. In the last month, how often have you been upset because of something that happened unexpectedly? ..... 0    1    2    3    4
2. In the last month, how often have you felt that you were unable to control the important things in your life? ..... 0    1    2    3    4
3. In the last month, how often have you felt nervous and "stressed"? ..... 0    1    2    3    4
4. In the last month, how often have you felt confident about your ability to handle your personal problems? ..... 0    1    2    3    4
5. In the last month, how often have you felt that things were going your way? ..... 0    1    2    3    4
6. In the last month, how often have you found that you could not cope with all the things that you had to do? ..... 0    1    2    3    4
7. In the last month, how often have you been able to control irritations in your life? ..... 0    1    2    3    4
8. In the last month, how often have you felt that you were on top of things?.. 0    1    2    3    4
9. In the last month, how often have you been angered because of things that were outside of your control? ..... 0    1    2    3    4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? ..... 0    1    2    3    4

Please feel free to use the *Perceived Stress Scale* for your research.

**Mind Garden, Inc.**

info@mindgarden.com

www.mindgarden.com

#### References

The PSS Scale is reprinted with permission of the American Sociological Association, from Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.  
Cohen, S. and Williamson, G. Perceived Stress in a Probability Sample of the United States. Spacapan, S. and Oskamp, S. (Eds.) *The Social Psychology of Health*. Newbury Park, CA: Sage, 1988.

Appendix 3: Questionnaire pack (page 6)

# POMS<sup>2</sup> – Adult Short

By Juvia P. Heuchert, Ph.D. & Douglas M. McNair, Ph.D.

Name/ID:

Administration Date: MM  DD  Y Y Y Y

Administration Time: HH  MM   AM  PM

Birth Date: MM  DD  Y Y Y Y

Age: \_\_\_\_\_ Gender:  Male  Female

Shade circles like this:

Not like this:

**To the Respondent:**  
 Below is a list of words that describe feelings that people have. Please read each word carefully, then shade in the circle that best describes:

How you have been feeling during the PAST WEEK, INCLUDING TODAY.

Shade circles like this:

Not like this:

		Not at all	A little	Moderately	Quite a bit	Extremely		Not at all	A little	Moderately	Quite a bit	Extremely
1. Friendly	<input type="radio"/>	18. Nervous	<input type="radio"/>									
2. Tense	<input type="radio"/>	19. Miserable	<input type="radio"/>									
3. Angry	<input type="radio"/>	20. Muddled	<input type="radio"/>									
4. Worn out	<input type="radio"/>	21. Bitter	<input type="radio"/>									
5. Lively	<input type="radio"/>	22. Exhausted	<input type="radio"/>									
6. Confused	<input type="radio"/>	23. Anxious	<input type="radio"/>									
7. Considerate	<input type="radio"/>	24. Good-natured	<input type="radio"/>									
8. Sad	<input type="radio"/>	25. Helpless	<input type="radio"/>									
9. Active	<input type="radio"/>	26. Weary	<input type="radio"/>									
10. Grouchy	<input type="radio"/>	27. Bewildered	<input type="radio"/>									
11. Energetic	<input type="radio"/>	28. Furious	<input type="radio"/>									
12. Panicky	<input type="radio"/>	29. Trusting	<input type="radio"/>									
13. Hopeless	<input type="radio"/>	30. Bad-tempered	<input type="radio"/>									
14. Uneasy	<input type="radio"/>	31. Worthless	<input type="radio"/>									
15. Unable to concentrate	<input type="radio"/>	32. Vigorous	<input type="radio"/>									
16. Fatigued	<input type="radio"/>	33. Uncertain about things	<input type="radio"/>									
17. Helpful	<input type="radio"/>	34. Drained	<input type="radio"/>									
							35. Enthusiastic	<input type="radio"/>				

Please ensure you have answered every item.  
 Thank you for completing this questionnaire.

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3921740

## Appendix 4: Demographic Questionnaire

### Questionnaire Pack: Mindfulness and the development of resilience

Title: Mr / Mrs /Miss/ Other:

Name: \_\_\_\_\_

ID number \_\_\_\_\_

Age: \_\_\_\_\_

Gender: \_\_\_\_\_

Country of Origin: \_\_\_\_\_

Highest Educational attainment: \_\_\_\_\_

Marital status: \_\_\_\_\_

No of repeat assessments: \_\_\_\_\_

Serial/First time or Would be entrepreneur (please circle)

Today's Date: \_\_\_\_\_

Please complete all sections of this pack. It helps us to evaluate the course, and could help us to obtain funding in the future. Please answer all the questions, even if you don't find them relevant personally. This will enable us to score the questionnaire accurately. Please read each question carefully, but do not spend too much time on each question. There are no right or wrong answers to the questions – your answer will depend on how you are feeling. The information that you provide in this form is confidential. It will only be seen by the research team undertaking the study.

Please ensure that you have completed all sections

## Appendix 5: Recruitment advert

# CALLING ALL ENTREPRENEURS

The role of mindfulness in the development of resilience in Entrepreneurs.

### About

Participants will embark on an 8x2 hours mindfulness intervention beginning in October 2015 running for 8 weeks. The course delivered by Dr Alessio Agostinis is normally £480 and will be provided free of charge.

### Contact (Glenda Rivoallan)

✉ Glenda.rivoallan@highlands.ac.uk

☎ Telephone ✎ 01534 608588  
✎ 07700 777552

## Business leaders in general and entrepreneurs in particular...

experience high levels of stress/distress due to the increasingly competitive and uncertain environments they operate within. Challenging circumstances and the adoption of the behaviour patterns of the surrounding culture minimize the likelihood of self-care. In complicating matters, as well as neglecting their health, many entrepreneurs,

harbor secret demons. In particular, new entrepreneurs struggle through moments of near-debilitating anxiety and despair, times when it seems that everything might crumble. However, this can come at a psychological price with entrepreneurs reporting higher levels of mood vulnerability, anxiety and depression than employees.

### We are seeking volunteers!

The development of resilience in individuals and entrepreneurs is viewed by many as a potential answer to the stress associated with contemporary lifestyles and workplaces. Increasing interest in the development of resilient workers has meant an enormous

growth in interest in the role of holistic practices such as mindfulness. The purpose of the proposed research is to explore the potential benefits of mindfulness training in developing resilience in the context of entrepreneurs.

## Entrepreneurs (nascent, first time and serial) are invited to take part.

Participants will attend an 8 week MBCT mindfulness programme consisting of 24 hours of session time including 1 all-day class, daily practice and completion of pre and post intervention measures. The main hypothesis being that mindfulness may be beneficial in improving resilience which is seen as important to the success of entrepreneurs.

Participants will be asked to complete a number of questionnaires before, during and after the intervention. Participants will also be asked to complete a practice diary during the duration of the intervention to record mindfulness practice techniques undertaken.

### Potential Benefits

- Stay engaged & move forward with more energy and capacity
- Increase self-awareness
- Avoid feeling overwhelmed or burnt out
- Decrease stress and improve performance
- Manage change & setbacks quicker
- Develop high quality connections
- Maximise productivity

**IF INTERESTED CLICK HERE**

## RESEARCH STUDY INFORMATION SHEET

### **The role of mindfulness in the development of resilience in entrepreneurs.**

Please take your time to read through the information provided and then decide whether or not you wish to take part.

#### PURPOSE OF THE STUDY

The primary aim of the study is to pilot the effectiveness of a Mindfulness Based intervention with roots in both mindfulness based stress reduction (MBSR) and mindfulness based cognitive therapy (MBCT) in the development of psychological resilience in a sample of entrepreneurs using a pre and post intervention design. The sample will participate in a secularised 8-week mindfulness based programme consisting of 26 hours of session time including two 1/2 hours and an all-day class, daily meditation and completion of pre and post intervention measures. The main hypothesis being that resilience will be positively correlated with mindfulness and that it will increase in line with daily mindfulness training. Resilience and mindfulness is also expected to differ with entrepreneur expertise.

The first objective to meet this aim involves comparing the resilience scores with entrepreneurs who have not attended the intervention, in comparison to entrepreneurs who have attended. The second objective is to establish whether or not an MBCT intervention is effective in developing the resilience of the participants during the intervention. To meet both objectives participants will be asked to complete a number of questionnaires before, during and after the intervention. Participants will also be asked to complete a practice diary during the duration of the intervention to record mindfulness practice techniques undertaken. Finally, semi structured interviews will be conducted with a smaller sample to explore the perceived benefits of the intervention (if any).

#### WHAT IS INVOLVED IF I AGREE TO TAKE PART IN THE STUDY?

To ensure anonymity, completed consent forms are for the participant's own records. Sending back the completed questionnaires will be regarded as consenting to voluntary participation

in the research study. Participants are asked to complete and send back the eligibility questionnaire on completion.

**Stage 1:** At intervals throughout the intervention (0, 4 weeks, 8 weeks and 12 weeks) participants will also be asked to complete a variety of related questionnaires to include:

- Stress: Perceived stress scale (PSS)
- Life satisfaction scale (LSS)
- Profile of Mood states (POMS – 2A)
- Mindfulness: 5 Facet Mindfulness Questionnaire (FFMQ)
- Resilience: Connor Davidson Scale (CD-RISC)

**Stage 2:** A smaller number of participants will be selected at random and invited to take part in a semi-structured interview on their perceptions of the effectiveness of the intervention in terms of their individual resilience. Changes in resilience pre & post the intervention will be explored.

#### WHERE AND WHEN WILL THE STUDY TAKE PLACE?

At stage 1 of the study, the participant will be asked to complete the questionnaires manually at the course venue - See course dates on page 5. At stage 2, a small number of participants will be asked to attend an interview at Highlands College Campus, St Saviour, Jersey.

#### WILL THE INFORMATION IN THE STUDY BE CONFIDENTIAL?

The information that will be obtained from this study will be treated with total confidentiality and will only be used for this study, thus the participant will not be identified in any report or publication resulting from this study. Any personal information will not be released to anybody for other purposes. Consent forms and questionnaires will be kept for the duration of this study and then destroyed and whilst complying with the Data Protection Act at all times (1998).

#### CAN I ASK FURTHER QUESTIONS ABOUT THE STUDY?

The information contained in this form is intended to provide the participant with all the necessary information on the study and your commitments to it, should he/she choose to participate. If the participant has any unanswered questions or he/she needs to have something clarified, please do not hesitate to ask the researcher. We, as the researchers, would like to be as helpful as possible. If you agree to participate in the study and would like to ask questions throughout the progression of the study, feel free to ask them.

#### CAN I WITHDRAW FROM THE STUDY?

Yes. You have the right to withdraw from the study at any time during its course, or choose not to answer certain questions. If you choose not to participate in this study at all, research packs should be sent back in the pre-paid envelope provided.

#### WHAT IF I AM HARMED?

If you are harmed by your participation in this study, there are no special compensation arrangements. If you are harmed due to someone's negligence, then you may have grounds for legal action.

#### **WHAT IF I WISH TO COMPLAIN ABOUT THE WAY IN WHICH THIS STUDY HAS BEEN CONDUCTED?**

If you have any cause to complain about any aspect of the way in which you have been approached or treated during the course of this study, the normal University complaints mechanisms are available to you and you will not be compromised in any way because you have taken part in a research study. If you have any complaints or concerns please contact either of the project co-ordinators:

Researcher: Glenda Rivoallan, 01534 608588, [glenda.rivoallan@highlands.ac.uk](mailto:glenda.rivoallan@highlands.ac.uk) Supervisor:  
Dr Tracey Coule, +44 (0) 114 225 5909, [T.M.Coule@shu.ac.uk](mailto:T.M.Coule@shu.ac.uk)

## **BENEFITS FROM PARTICIPATION**

Although we cannot promise that the study will be of immediate benefit to you, the information collected may provide specific information regarding the potential effectiveness of MBCT interventions in developing resilience in entrepreneurs and give valuable insight into how it can be developed and nurtured. Providing empirical evidence which is currently not present in the field will inform evidence based mindfulness programmes for entrepreneurs and better equip the entrepreneur for the environment they operate within as a result of becoming more resilient.

**RESEARCH ELIGIBILITY**

**The role of mindfulness in the development of resilience in entrepreneurs.**

**Please complete the whole of this section yourself:**

Please cross  
out as  
necessary

1. Have you ever taken part in a mindfulness based course?

YES / NO

If Yes, then please give details:

2. Are you an entrepreneur\* (nascent, first time or serial)?

YES / NO

If Yes, then please give details:

3. Did you set up a business taking on the financial risk in the hope of making profit?

YES / NO

4. Did your business need funding to get off the ground?

5. Are you at this time undergoing any treatment relating to mental health?

YES/NO

6. Do you agree to take part in this study?

YES / NO

7. Do you agree that you will not take part in a mindfulness course before the course starts?

YES/NO

Signed ..... Date .....

Entrepreneur - a person who sets up a business or businesses, taking on financial risks in the hope of profit.

## **COURSE INFORMATION**

The dates for the course are as follows:

- > 3rd October - 11.30am to 1.30pm
- > 10th October - 11.30am to 1.30pm
- > 17th October - 11.30am to 1.30pm
- > 24th October - 11.30am to 1.30pm
- > HALF TERM BREAK
- > 7th November - 11.30am to 1.30pm
- > 14th November - 11.30am to 1.30pm
- > 21st November - 11.30am to 1.30pm
- > 28th November - 11.30am to 1.30pm

N.B. Attendance is most beneficial if you are able to commit to all eight sessions. Practice in personal time (15-20 minutes per day) and no less than 7 sessions.

> **WHERE DO THE GROUPS RUN?** Large Meeting Room, Jersey Hospice Care, Clarkson House, Mont Cochon, St Helier, Jersey, JE2 3JB Jersey Hospice care offer wonderful teaching/training facilities including all required teaching materials, audio/visual equipment and catering needs.

> **HOW DO I GET THERE? DIRECTIONS TO JERSEY HOSPICE CARE.** To get to Jersey Hospice Care from St Helier, head west along the Avenue. At First Tower, turn right at the traffic lights (by the Martello Tower) and up Mont Cochon (you will Pass the Old Bakehouse on your right and a corner shop on your left). Carry on up Mont Cochon, passing St Andrew's Park on your left, go round two sets of S bends and Jersey Hospice Care is at the top of the hill on your right.

> **WHEN AND HOW LONG FOR?** It will run over eight Saturday morning sessions. Arrival at 11.15am for 11.30am start. All session end at 1:30pm. Please note on the first day we would like people to arrive at 10.30am as there are some pre course questionnaires to complete.

> **HOW MUCH WILL IT COST?** The cost of each course is free of charge for research participants (normally £350) Fee includes: mats, stools/cushions, tea coffee and biscuits on course days, as well as hand-outs and CDs/USB with audio tracks for personal practice.

**The role of mindfulness in the development of resilience in entrepreneurs.**

**Please complete the whole of this section yourself:**

Please cross  
out as  
necessary

Have you read the Research Study Information Sheet?

YES / NO

Have you had an opportunity to ask questions and discuss this study?

YES / NO

Have you received satisfactory answers to all of your questions?

YES / NO

Have you received enough information about the study?

YES / NO

Who have you spoken to? Dr/Mr/Mrs/Ms .....

Do you understand that you are free to withdraw from the study  
at any time without having to give a reason for withdrawing?

YES / NO

Do you agree to take part in this study?

YES / NO

Signed ..... Date .....

(NAME IN BLOCK LETTERS)

.....

Signature of Witness ..... Date .....

**Researcher: Glenda Rivoallan**

**Please keep a copy of this consent form for your records**

## **Appendix 8: Post intervention Impact Questionnaire**

### **Questions following the mindfulness course**

**Q1. Have you observed any changes since attending and completing the course? (please detail)**

**Q2. If you have observed changes how do you feel they have impacted on your resilience and mindfulness?**

**Q3. Please give the most significant examples**

## Appendix 9: Ethical approval



### RFDNA (2012-13)

## DEVELOPMENT NEEDS ANALYSIS FOR RESEARCH STUDENTS

### Purpose of the DNA

All research students in the UK now have to engage with a Development Needs Analysis (DNA). The idea behind the DNA is that you do a self-assessment so that you have a much clearer sense of your strengths and weaknesses in terms of skills competence. In discussion with your supervisors, it should be possible to identify where and how you may be able to develop such skills if you currently feel there is a need. The University will be responsible for ensuring that provision is available to meet these needs. ***If you feel that you don't need to take part in any formal generic skills training activity, then that is your decision. However, it is important for the university to know that we have offered you the chance to do this, so please sign a copy of the DNA which must be counter-signed by your Director of Studies and returned to the Head of Programme Area (Research Degrees).*** Nevertheless, all students are required to take some general training via University/Faculty induction events and an Introduction to the Learning Centre which will help you when beginning your research degree. Students are also advised to have regular update sessions from their Learning Centre as services and provision are enhanced throughout the year.

### How Skills Development Needs will be met

The '**Guide to Research Training and Development Programmes**' is a University handbook whose purpose is to inform you and your supervisors of the range and availability of training and development events (both research methods and generic) which the University has to offer. It is available from the Research Student Blackboard site (or the Research Staff site for supervisors). The University 'Generic Skills Training Programme' has been designed to equip you with the skills needed for personal and professional development. The programme is delivered by Central departments and is available to all research students free of charge. The

programme consists of a mixture of compulsory and optional units in subjects such as project management, team working, presentation skills etc. Your Faculty will make sure that those parts of the Joint Skills Statement (see table B for details) which are embedded in the research process itself, will be met through the supervision process, by carrying out the research itself, by being part of a research culture and also through departmental activities such as induction, specialist seminars, working groups etc.

### **Support for Teaching**

Should you be interested in undertaking teaching duties (**in relation to skill E5**) you will need to undertake the programme of Associate Lecturer Workshops which are organised by the Learning and Teaching Institute. These run in the first semester of each academic year and details can be found in 'The Guide to Research Training and Development Programmes'. A new policy was agreed with effect from the 2010/11 session which makes this training **mandatory** for all research students engaged in teaching. Thus if you are planning to apply for teaching duties in your second year and beyond (although none can be guaranteed), you must have successfully completed this workshop programme.

### **Monitoring and Review Processes**

You will need to stipulate a 'programme of related studies and guided reading' (regulation R4.6) as part of the application for Approval of Research Programme - RF1 (or equivalent professional doctorate form). The regulation has been revised in line with QAA requirements to ensure that all new students from the 2005/6 session onwards complete a DNA during induction in the new academic term. This will allow you to identify skills areas which could be strengthened by some form of development activity eg, a formal seminar, group workshops, or intra-university events. The DNA will be used by each student as part of Personal Development Planning (PDP). An ePDP resource has been specially designed for research students and is available on the Research Student Blackboard site. You will be expected, informally via routine supervisory meetings and formally via annual monitoring, to confirm that the development activity identified has been/will be completed. Those students enrolled on MPhil or PhD subject to Confirmation who apply for the Confirmation of PhD process, will need to formally verify at that stage that the programme of related studies and associated training has been completed/progressed. Returning students should also complete the DNA after re-enrolment. Progress with the proposed training activity will be monitored formally via the annual monitoring exercise.

***All students will be expected to complete a DNA in every year that they enrol on their research degree, up to completion.***

## **How to Complete the DNA**

You need to refer to the 36 skills areas listed in the Joint Skills Statement (see table B) and **complete table A to identify:**

- what you have already done (which can be logged on your e- PDP record)
- what training and development you require to bridge the skills gap(s) you have identified
- where/how you will receive training and development for these areas.

## **Summary**

**Four things need to happen:**

1. You should fill out this form (and keep a copy for personal use)
2. You should discuss it with your Director of Studies (with reference to the 'Guide to Research Training and Development Programmes' for assistance)
3. Details of proposed training, if you are a new student, should be confirmed on the RF1 form as part of the programme of related studies
4. A completed signed version of the DNA should be sent to the Faculty Head of Programme Area (Research Degrees).

***TABLE A: ASSESSMENT BY SKILL GROUP (refer to Table B)***

<b>Category of skill</b>	<b>Training and Development Activity previously completed</b>	<b>Training and Development Required</b>	<b>Anticipated source of skills development</b>
(A) Research skills and techniques	DBA Research philosophy and research design modules, MSc, Research methods modules and Dissertation.	Quantitative Data Analysis techniques e.g. SPSS.  Qualitative data analysis – interview & diary techniques	Shu Courses and external workshops to be identified.  Mentoring with Dr Paul Mahrer  CPD within Highlands College
(B) Research environment	DBA, Sheffield Business School Research community.  Jersey Business will give me access to entrepreneurs locally in Jersey.	None	
(C) Research management	MSc Dissertation and research training on DBA.  Regular action research undertaken in Vice principal role.	Quantitative Data Management  Qualitative Data Management	NVivo training, Shu course.  SPSS
(D) Personal effectiveness	I am a proven entrepreneur so understand the business context and environment	None	N/A

	<p>entrepreneurs work within.</p> <p>I am also Vice principal of Jersey's only FE and HE college.</p> <p>Juggling a successful business and day job demands honed time management and organisation skills. I have self-discipline and extremely motivated.</p>		
(E) Communication writing skills targets and written writing. communication.	Vast experience in presenting, producing academic	Continue to delivering style of	Weekly practice
(F) Networking and team-working	I am extremely experienced in both team working and Networking. I have many contacts in the context of entrepreneurship. I have strong relationship with Jersey Business who has agreed to give me access to local business leaders. I do frequent Jersey's business calendar of events throughout the year. I regularly attend business conferences and happy to promote what I am studying.	Continue to network	Through persistent networking

(G) Career management	None	None	N/A
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## TABLE B: Joint Skills Statement

### Introduction

All universities are required to provide training provision for research degree candidates to develop generic skills as part of a wider Personal Development Planning agenda (PDP). It must be emphasised that these skills may be present on commencement, explicitly taught, or developed during the course of the research. It is expected that different mechanisms will be used to support learning as appropriate, including self-direction, supervisor support and mentoring, departmental support, workshops, conferences, elective training courses, formally assessed courses and informal opportunities. The purpose of this statement is to give a common view of the skills and experience of a typical research student which can provide a clear framework for skills development.

#### **(a) Research Skills and Techniques - to be able to demonstrate:**

1. the ability to recognise and validate problems
2. original, independent and critical thinking, and the ability to develop theoretical concepts
3. a knowledge of recent advances within one's field and in related areas
4. an understanding of relevant research methodologies and techniques and their appropriate application within one's research field
5. the ability to critically analyse and evaluate one's findings and those of others
6. an ability to summarise, document, report and reflect on progress

#### **(b) Research Environment - to be able to:**

1. show a broad understanding of the context, at the national and international level, in which research takes place
2. demonstrate awareness of issues relating to the rights of other researchers, of research subjects, and of others who may be affected by the research, e.g. confidentiality, ethical issues, attribution, copyright, malpractice, ownership of data and the requirements of the Data Protection Act
3. demonstrate appreciation of standards of good research practice in their institution and/or discipline
4. understand relevant health and safety issues and demonstrate responsible working practices
5. understand the process for funding and evaluation of research
6. justify the principles and experimental techniques used in one's own research
7. understand the process of academic or commercial exploitation of research results

#### **(c) Research Management - to be able to:**

1. apply effective project management through the setting of research goals, intermediate milestones and prioritisation of activities
2. design and execute systems for the acquisition and collation of information through the effective use of appropriate resources and equipment
3. identify and access appropriate bibliographical resources, archives, and other sources of relevant information
4. use information technology appropriately for database management, recording and presenting information

**(d) Personal Effectiveness - to be able to:**

1. demonstrate a willingness and ability to learn and acquire knowledge
2. be creative, innovative and original in one's approach to research
3. demonstrate flexibility and open-mindedness
4. demonstrate self-awareness and the ability to identify own training needs
5. demonstrate self-discipline, motivation, and thoroughness
6. recognise boundaries and draw upon/use sources of support as appropriate
7. show initiative, work independently and be self-reliant

**(e) Communication Skills - to be able to:**

1. write clearly and in a style appropriate to purpose, e.g. progress reports, published documents, thesis
2. construct coherent arguments and articulate ideas clearly to a range of audiences, formally and informally through a variety of techniques
3. constructively defend research outcomes at seminars and viva examination
4. contribute to promoting the public understanding of one's research field
5. effectively support the learning of others when involved in teaching, mentoring or demonstrating activities

**(f) Networking and Teamworking - to be able to:**

1. develop and maintain co-operative networks and working relationships with supervisors, colleagues and peers, within the institution and the wider research community
2. understand one's behaviours and impact on others when working in and contributing to the success of formal and informal teams
3. listen, give and receive feedback and respond perceptively to others

**(g) Career Management - to be able to:**

1. appreciate the need for and show commitment to continued professional development
2. take ownership for and manage one's career progression, set realistic and achievable career goals, and identify and develop ways to improve employability
3. demonstrate an insight into the transferable nature of research skills to other work environments and the range of career opportunities within and outside academia
4. present one's skills, personal attributes and experiences through effective CVs, applications and interviews

<b>Student Name:</b>  Glenda Rivoallan	<b>Signature:</b>  G Rivoallan
<b>Director of Studies name:</b>	<b>Signature:</b>
<b>Faculty: Sheffield Business School</b>	

<b>Name of Faculty Head of Programme Area (Research Degrees*):</b>  <b>Prof Susanne Tietze</b>  <i>See below for guidance</i>	<b>Signature:</b>
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***\*The names of the Faculty Head of Programme Area (Research Degrees) are as follows:***

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***ACES – (C3RI) – Dr Kathy Doherty***

<b><i>(MERI)– Professor Doug Cleaver</i></b>
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***Development and Society – Professor Lisa Hopkins***

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***Health and Wellbeing – Professor Tom Smith***

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***Sheffield Business School – Professor Susanne Tietze***

## **RESEARCH ETHICS CHECKLIST (SHUREC1)**

This form is designed to help staff and students to complete an ethical scrutiny of proposed research. The SHU [Research Ethics Policy](#) should be consulted before completing the form.

Answering the questions below will help you decide whether your proposed research requires ethical review by a Faculty Research Ethics Committee (FREC). In cases of uncertainty, members of the FREC can be approached for advice.

**Please note:** staff based in University central departments should submit to the University Ethics Committee (SHUREC) for review and advice.

The final responsibility for ensuring that ethical research practices are followed rests with the supervisor for student research and with the principal investigator for staff research projects.

Note that students and staff are responsible for making suitable arrangements for keeping data secure and, if relevant, for keeping the identity of participants anonymous. They are also responsible for following SHU guidelines about data encryption.

The form also enables the University and Faculty to keep a record confirming that research conducted has been subjected to ethical scrutiny.

- For student projects, the form may be completed by the student and the supervisor and/or module leader (as applicable). In all cases, it should be counter-signed by the supervisor and/or module leader, and kept as a record showing that ethical scrutiny has occurred. Students should retain a copy for inclusion in their research projects, and staff should keep a copy in the student file.
- For staff research, the form should be completed and kept by the principal investigator.

Please note if it may be necessary to conduct a health and safety risk assessment for the proposed research. Further information can be obtained from the Faculty Safety Co-ordinator.

### General Details

*(Table cells will expand as you type)*

Name of principal investigator or student	Glenda Rivoallan
SHU email address	b2046937@my.sch.ac.uk
Course or qualification (student)	DBA in Business Administration
Name of supervisor (if applicable)	Tracey Coule
email address	T.M.Coule@shu.ac.uk
Title of proposed research	The role of mindfulness in the development of resilience in entrepreneurs
Proposed start date	May 2015
Proposed end date	Dec 2016

<p>Brief outline of research to include, rationale &amp; aims (250-500 words). In addition for research with human participants, include recruitment method, participant details &amp; proposed methodology (250-500)</p>	<p>There are various coping strategies that can be enacted by entrepreneurs in the development of resilience and one such strategy which has enjoyed a tremendous surge in popularity in the past decade is the concept of mindfulness. The idea that there is a relationship between mindfulness training and improved resilience in the entrepreneur is on the premise that mindfulness, mindful learning and mindfulness processes develop the key constructs of resilience (resourcefulness, hardiness, optimism, positive emotion and self-regulation) and that resilience can be both learned and improved over time. This study aims to conduct a quasi-experiment to test the hypothesis that resilience will be positively correlated with mindfulness and that it will increase in line with daily mindfulness training. Resilience and mindfulness is also expected to differ with entrepreneur expertise. (i.e. whether the individual is a would be, first time or serial entrepreneur).</p>
<p>Will the research be conducted with partners &amp; subcontractors?</p>	<p><b>Yes/No Yes</b></p> <p>(If <b>YES</b>, outline how you will ensure that their ethical policies are consistent with university policy.)</p> <p>The mindfulness sessions will be delivered by Dr Alessio Agostinis. He is a Consultant Clinical Psychologist, registered with the health and care professions council (HCPC) and featuring on both the Charter and the Expert Witness directory of the British Psychological Society (BPS). He first qualified as a clinical psychologist in 2008 following completion of a psychology degree in 2002 and a competitive doctoral package in 2008. He progressed through the ranks of specialist, highly specialist and eventually became a consultant in 4.5 years in 2013 (average 8-10 years). He developed specialist interest in mindfulness based approaches including acceptance and commitment therapy (ACT) having attended a number of postgraduate advanced training and supervision with Prof Kelly Wilson (co-founder of ACT), Prof Lance McCracken and Prof Joanne Dhal (both leading UK and Swedish widely published figures in the same) and having trained and accredited as a mindfulness teacher with Breathworks, an internationally renowned provider of mindfulness courses for long term conditions and stress and one of the first members of the UK network for mindfulness teachers and trainers. He has delivered several mindfulness groups and individual mindfulness and mindfulness based therapies and regularly provides teaching training and</p>

	consultation to individuals, groups and organizations. He has also provided consultation and expertise to UK Government organizations.
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**1. Health Related Research Involving the NHS or Social Care / Community Care or the Criminal Justice Service or with Research participants unable to provide informed consent**

Question	Yes/No
<p>1. Does the research involve?</p> <p>Patients recruited because of their past or present use of the NHS or SC</p> <p>Relatives/carers of patients recruited because of their past or present use of the NHS or SC</p> <p>Access to data, organs or other bodily material of past or present NHS patients</p> <p>Foetal material and IVF involving NHS patients</p> <p>The recently dead in NHS premises</p> <p>Prisoners or others within the criminal justice system recruited for health-related research*</p> <p>Police, courts, prisoners or others within the criminal justice system*</p> <p>Participants who are unable to provide informed consent due to their incapacity even if the project is not health related</p>	No
<p>2. Is this a research project as opposed to service evaluation or audit?</p> <p><i>For NHS definitions please see the following website</i></p> <p><a href="http://www.nres.nhs.uk/applications/is-your-project-research/">http://www.nres.nhs.uk/applications/is-your-project-research/</a></p>	

If you have answered **YES** to questions **1 & 2** then you **must** seek the appropriate external approvals from the NHS, Social Care, or Criminal Justice System under their Research Governance schemes. Further information is provided below.

NHS <https://www.myresearchproject.org.uk/Signin.aspx>

\* All prison projects also need National Offender Management Service (NOMS) Approval and Governor's Approval and may need Ministry of Justice approval. Further guidance at: <http://www.ohrn.nhs.uk/toolkit/Toolkit4thEdition.pdf>

**NB** FRECs provide Independent Scientific Review for NHS or SC research and initial scrutiny for ethics applications as required for university sponsorship of the research. Applicants can use the NHS proforma and submit this initially to the FREC.

**2. Research with Human Participants**

Question	Yes/No
<p>1. Does the research involve human participants? This includes surveys, questionnaires, observing behaviour etc.</p>	Yes
Question	Yes/No

<i>Note</i>	<i>If YES, then please answer questions 2 to 10 If NO, please go to Section 3</i>	
2. <i>Note</i>	Will any of the participants be vulnerable? <i>'Vulnerable' people include young people under 18, people with learning disabilities, people who may be limited by age or sickness or disability from understanding the research, etc.</i>	No
3	Are drugs, placebos or other substances (e.g. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind?	No
4	Will tissue samples (including blood) be obtained from participants?	No
5	Is pain or more than mild discomfort likely to result from the study?	No
6	Will the study involve prolonged or repetitive testing?	No
7	Is there any reasonable and foreseeable risk of physical or emotional harm to any of the participants? <i>Note Harm may be caused by distressing or intrusive interview questions, uncomfortable procedures involving the participant, invasion of privacy, topics relating to highly personal information, topics relating to illegal activity, etc.</i>	No
8	Will anyone be taking part without giving their informed consent?	No
9 <i>Note</i>	Is it covert research? <i>'Covert research' refers to research that is conducted without the knowledge of participants.</i>	No
10	Will the research output allow identification of any individual who has not given their express consent to be identified?	No

If you answered **YES only** to question 1, you **must** submit the signed form to the FREC for registration and scrutiny. If you have answered **YES** to any of the other questions you are **required** to submit a SHUREC2A (or 2B) to the FREC. If you answered **YES** to question 8 and participants cannot provide informed consent due to their incapacity you must obtain the appropriate approvals from the NHS research governance system.

### 3. Research in Organisations

Question	Yes/No
Will the research involve working with/within an organisation (e.g. school, business, charity, museum, government department, international agency, etc)?	No
If you answered YES to question 1, do you have granted access to conduct the research? <i>If YES, students please show evidence to your supervisor. PI should retain safely.</i>	
3 If you answered NO to question 2, is it because: you have not yet asked you have asked and not yet received an answer	

Question	Yes/No
C. you have asked and been refused access. <i>You will only be able to start the research when you have been granted access.</i>	

#### 4. Research with Products and Artefacts

Question	Yes/No
1. Will the research involve working with copyrighted documents, films, broadcasts, photographs, artworks, designs, products, programmes, databases, networks, processes or secure data?	No
2. If you answered YES to question 1, are the materials you intend to use in the public domain?  <i>Notes</i> <i>'In the public domain' does not mean the same thing as 'publicly accessible'. Information which is 'in the public domain' is no longer protected by copyright (i.e. copyright has either expired or been waived) and can be used without permission. Information which is 'publicly accessible' (e.g. TV broadcasts, websites, artworks, newspapers) is available for anyone to consult/view. It is still protected by copyright even if there is no copyright notice. In UK law, copyright protection is automatic and does not require a copyright statement, although it is always good practice to provide one. It is necessary to check the terms and conditions of use to find out exactly how the material may be reused etc. If you answered YES to question 1, be aware that you may need to consider other ethics codes. For example, when conducting Internet research, consult the code of the Association of Internet Researchers; for educational research, consult the Code of Ethics of the British Educational Research Association.</i>	
3. If you answered NO to question 2, do you have explicit permission to use these materials as data? <i>If YES, please show evidence to your supervisor. PI should retain permission.</i>	
4. If you answered NO to question 3, is it because: you have not yet asked permission you have asked and not yet received and answer you have asked and been refused access.  <i>Note</i> <i>You will only be able to start the research when you have been granted permission to use the specified material.</i>	A/B/C

#### Adherence to SHU policy and procedures

Personal statement
I can confirm that: – I have read the Sheffield Hallam University Research Ethics Policy and Procedures – I agree to abide by its principles.

<b>Student / Researcher/ Principal Investigator (as applicable)</b>	
Name: Glenda Rivoallan	Date: 19/4/15
Signature:	
<b>Supervisor or other person giving ethical sign-off</b>	
I can confirm that completion of this form has not identified the need for ethical approval by the FREC or an NHS, Social Care or other external REC. The research will not commence until any approvals required under Sections 3 & 4 have been received.	
Name:	Date:
Signature:	
<b>Other signing box</b>	
Name:	Date:
Signature:	

**Please ensure the following are included with this form if applicable, tick box to indicate:**

	Yes	No	N/A	Research proposal if prepared previously
Any recruitment materials (e.g. posters, letters, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participant information sheet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participant consent form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Details of any measures to be used (e.g. questionnaires, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Details of any support materials provided to participants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Debriefing materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>